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FROM

Julius R. Wakefield

Francis W. Lathrop.



Mausoleum of Hyder Ali.



Comet of 1809.

PETER PARLEY'S
BOOK OF CURIOSITIES,
NATURAL AND ARTIFICIAL.



ILLUSTRATED BY ONE HUNDRED ENGRAVINGS.

—♦—
PHILADELPHIA:
THOMAS DESILVER, JR.

BOSTON: RICHARDSON, LORD & HOLBROOK, AND WAITT & DOW.
NEW YORK: COLLINS & HANNY.

1832.

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P R E F A C E.

THIS volume consists of selections from various writers, descriptive of some of the most remarkable works of nature and art, in different parts of the world. These are generally given in the words of the authors, from which the extracts are made. It is believed that the volume will be interesting to youth, and it can hardly fail to impart much instruction, to those who read it with attention.

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BOOK OF CURIOSITIES.



MANNERS AND CUSTOMS.



FEAST OF THE LANTERNS.

THIS is a splendid festival among the Chinese, when every part of the empire is completely illuminated. Both in city and country, on the coast and on the rivers, every person lights up his painted lanterns. These are of various forms and sizes, covered with transparent silk, ornamented with flowers, animals and human figures. They are lighted by lamps or wax candles, and adorned with gilding, japanning, sculpture, and elegant streamers of silk or satin.

Some of these lanterns are very huge, so that the Chinese eat, lodge, receive visits, have balls and act plays in them. The largest lanterns frequently exhibit moving figures, which are set in motion by means of hidden threads. The spectators are in this manner amused by the sight of horses galloping, ships sailing, and armies in full march. Some carry about serpents of an enormous length, illuminated within from the head to the tail, and

so contrived that they wreath about in different forms as if they were alive.

To add to the brilliancy of this festival, a variety of fire-works are exhibited. In one of these exhibitions, an arbour of vines with red grapes was represented, in which the color of the wood, fruit and leaves was exactly imitated; the whole appeared to be burnt, and yet remained uninjured.

This feast is held on the fifteenth day of the first month. The number of lanterns lighted throughout the whole of China, and hung out of the houses and in the streets, is said to be over two hundred millions. People of common rank will expend fifty or sixty dollars on the occasion; and even the poorest will exert themselves to contribute to the general illumination.

TATTOOING.

The custom of marking the skin, or, as it is called in some of the Pacific Islands, *Tattooing*, is one of the most general practices of savage life. It is performed by means of pointed instruments of bone, made in different forms, and gently driven into the skin. The operation is in many places entrusted to people who get their entire livelihood by it. Those who show the most skill and taste in arranging these ornaments, are as much sought after as the best tailors are amongst civilized nations.

The principal strokes of the figures to be tattooed are first sketched upon the body, with the same dye that is afterwards rubbed into the punctures. When these fig-

ures have been traced by the instruments, a thick dye, composed of ashes from the kernel of an oily nut mixed with water, is rubbed into the skin. This at first occasions a slight smarting and inflammation ; it then heals, and after some days the blueish or blackish blue figure appears.

The art of tattooing, has been carried to its greatest perfection among the inhabitants of the Washington Islands. As soon as a youth of one of these islands approaches towards manhood, the operation is begun, and this forms one of the most important periods of his life. The artist is sent for, and an agreement made with him in respect to his pay. This generally consists of a certain number of hogs, and is large or small according to the wealth of the party. In the first year, only the ground-work of the principal figures upon the breast, arms, back and thighs is laid : some addition is constantly made to them at intervals of from three to six months, and this is often continued for thirty or forty years before the whole tattooing is completed.

The women of the Washington Islands are very little tattooed, differing in this respect from the inhabitants of the other South Sea islands. The hands are punctured from the ends of the fingers to the wrists, which gives them the appearance of wearing gloves. The feet are made to resemble highly ornamented half-boots ; the arms are decorated with long stripes, and with circles which have much the effect of the bracelets worn by European ladies.

Sometimes a rich islander will make a feast in honor of his wife, when she has her ear ornaments, or a bracelet tattooed about her arm. A hog is then killed, and the friends of both sexes are invited to partake of it.

The objects with which the body is tattooed are selected with great care. They consist partly of sketches of men, birds, dogs and various animals ; partly of squares, circles, diamonds and other such figures. The head of a man is tattooed in every part. The breast is commonly ornamented with a figure resembling a shield ; on the arms and thighs are broad and narrow stripes. Upon the back is a large cross, beginning at the neck. On each side of the calf of the leg is an oval figure. The whole in short displays much taste and skill.

THE VENETIAN GONDOLAS.

Venice is situated on a number of islands, and has canals for highways, and gondolas for hackney coaches. Of these there are now in this city of waters, about two thousand. At one time the Venetian noble had always six or seven of his own, which were fixed to high poles before the gates of his palace, and rowed by servants in liveries. Few individuals have now more than two or three.

The gondola is a sort of canoe, thirty-three feet in length and four feet in breadth. The head is formed of steel, and projects like a swan's neck. In the middle is a low, covered apartment fitted up like a carriage, with glass windows, blinds, and cushioned seats for four per-

sons. Behind this stands the gondolier, who rows with one oar and keeps time with one foot. The cabin, and the whole vessel, with the exception of the steel prow, and some brass ornaments, is painted black.

At night they all carry a lantern at the prow and stern ; and the effect of these lights, flitting to and fro in every direction, is very pleasing. In the lustre of a Venetian moonlight, the silent motion of these dark barks over the serene and shining waters, has a still more beautiful appearance. At that time, the solitary song of the gondolier, when softened and mellowed by distance, acquires a plaintive and touching harmony.

TURKISH MANNERS.

The Turks are not fond of allowing people to draw or sketch, and are in fact very particular as to this. They eat with their fingers ; for instance, one takes a fowl, tears off a leg or a wing, and offers it to his neighbour. Dishes of flesh are served in small bits in one large dish, into which each one thrusts his finger in his turn, and takes out his mess. The wealthy eat of twenty dishes, and only a mouthful of each. They take two meals a day ; one at ten, and the other at about six. They are very careful to wash their hands before eating.

The dress of the men is always the same, but the women are subject to the changes of fashion. This is chiefly in the head dress. They never wear stockings, but have trowsers which are tied below the knee, and double

down, so as only to show the point of the foot. Their hair is plaited and hangs down the back.

The learning of the Turks is such that it is said there is only one bookseller in Constantinople. He has a small collection of French and Italian works, with a few English.

FUNERAL CEREMONIES OF THE CHINESE.

On the day of the funeral, the relations are assembled, and attend the corpse to the burial-place in the following order. A number of men march in file, carrying paste-board figures of slaves, elephants, lions, tigers and other animals. Next follow men with flags, censers filled with perfumes, and tables of sweet-meats : while melancholy airs are played upon drums, bells, and various instruments. Immediately after the musician, follows the coffin, which is carried under a canopy of violet-coloured silk, neatly embroidered and covered with net-work.

The eldest son, clothed in a canvass frock, having his body bent and leaning on a staff, follows near the coffin. Behind him are his brothers, two and two, leaning on crutches, as if unable to support themselves. The procession is closed with the mother and daughters, carried in close chairs, and all the other relations and friends of the deceased in mourning. They all make a great show of sorrow, and fill the air with their mournful cries.

When they arrive at the burial-ground, the coffin is placed in a tomb prepared for it, and at a small distance there are several halls, where tables are spread with pro-

visions for the mourners and attendants. If the deceased were a grandee of the empire, his relations do not leave the tomb for a month or two, but reside in apartments prepared for them and renew their respects to the dead daily. The magnificence of these funerals depends upon the rank or wealth of the deceased. That of one of the emperor's brothers was attended by upwards of sixteen thousand persons.

Mountains and solitary places are generally chosen for the burial of the great. If the tomb be erected in a valley or plain, a large heap of earth is raised over it, and covered with white plaister. In the vault, an altar is erected, and covered with meats, incense, lighted tapers, and figures of slaves and animals, which are supposed to be of service to the dead in another world.

If the deceased held any considerable office, his most virtuous actions are engraved on marble and fixed up in front of the tomb; while figures representing officers, eunuchs, horses, stags, camels, lions and elephants are ranged round in different rows. About the tomb are groves of aged cypresses, giving an air of solemnity and sadness to the whole scene.

Each family of respectability has a large building, called the hall of ancestors, erected on some part of their estates, and common to all the branches of that family. In this hall, a long table is set against the wall, which bears the figures of their ancestors who have distinguished themselves by their talents or their patriotism. Sometimes, however, it contains only the names of men,

women and children belonging to the family, with their ages and dignities, inscribed upon tablets.

In spring the relations assemble at this hall, and the wealthiest of them prepare a banquet which seems to have been originally designed for the dead. None of the viands are touched till an offering has been made with due solemnity.

Besides these annual entertainments, the Chinese consider themselves obliged to visit the tombs of their ancestors once or twice a year. At these times, they pluck up the weeds and bushes that surround the sepulchre, and place wine and provisions upon it. The poorer classes, who have no hall to honour their ancestors, are satisfied with fixing up their names in the most open part of their houses.

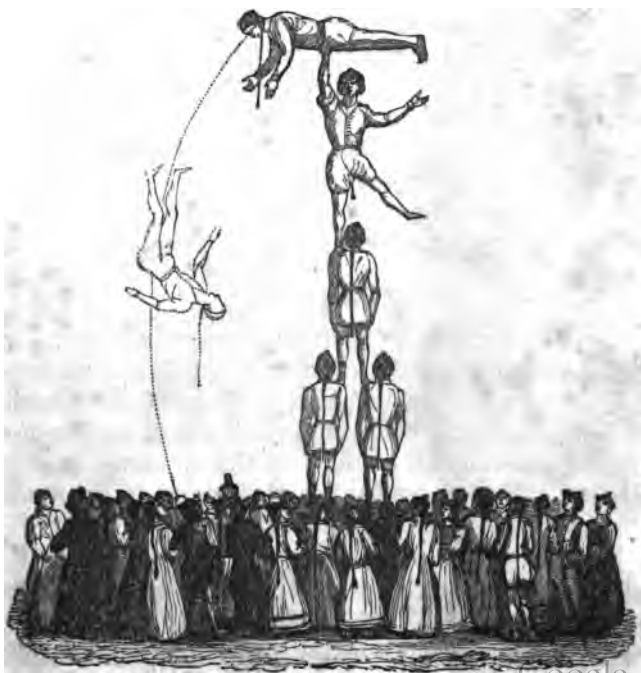
THE CHILDREN OF NAPLES.

It is said that there is not a city in the world, the neighbourhood of which is so stirring and bustling as that of Naples. You perceive an extraordinary liveliness and animation long before you reach the capital ; so that you are well prepared for the astonishing scene which awaits you on your arrival.

One of the most interesting sights is the great number of very young children, who are already of use to their parents. You see little boys and girls as busily employed as their elders. One is the bearer of his father's breakfast to the fields. Another carries a pick-axe or spade, which you would hardly think him strong enough

to lift. Another is driving an ass with vegetables to market. I saw a little creature standing on a chair, grinding a knife, while another still younger was turning the wheel. In short, in Naples, every one is busy, and every body seems to be in a hurry. The sight of this active crowd is extremely entertaining.

CHINESE FEAT OF STRENGTH.



In a Chinese theatre, the following wonderful feat of strength was exhibited. Four men placed themselves in a solid square, two others then got up and placed themselves on their shoulders, and one man again ascended upon theirs. Another performer then mounted a ladder and got on the shoulders of the last. This raised him as high as the top of the scenes, from whence another man was handed to him, whom he took in his right hand by the waistband, and held up over his head a considerable time. Then raising one leg, he balanced himself and his burthen on the other. After this he threw his live lumber, head over heels among the surrounding actors, who caught him in their arms; whilst at the same time he made a somerset on the other side, and descending disappeared among the crowd. In this feat there appeared to be no deception, and the stage was as distinct as mid-day.

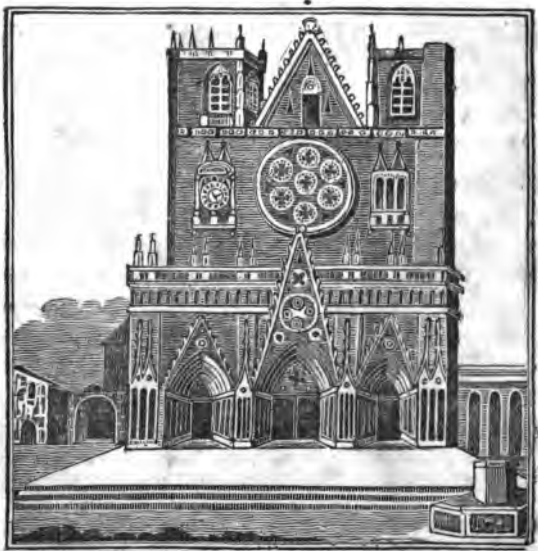
MECHANISM.

CURIOUS CLOCK AT STRASBURG.

The most famous clock in the world is at Strasburgh, in Germany. It was invented by Conradius Dasipodius, in the year 1571. Before the clock stands a globe on the ground, showing the motions of the heavens, stars and planets. The heavens are carried about in twenty-four hours, and the moon in one month.

To the clock itself, there are two tables, on the right and left hand, shewing the eclipses of the sun and moon from the year 1573 to the year 1624. In the middle frame of the clock is a metal plate, showing the sign in

which each planet is every day, and the statues of the seven planets upon a round piece of iron lying flat. There is also a globe of the earth, which shows the quarter, the half hour, and the minutes. Besides these, there are the skull of a dead man, and the statues of two boys, one of whom turns the hour glass, when the clock strikes, and the other puts forth the rod in his hand at



each stroke of the clock. To all this may be added the statues of Spring, Summer, Autumn and Winter, and many representations of the moon.

In the upper part of the clock are four old men's statues, which strike the quarters of the hour. The statue of Death comes out at each quarter to strike, but is driven back by the statue of Christ, with a spear in his hand, for three quarters. In the fourth quarter, that of Christ goes back and that of Death strikes the hour, with a bone in his hand, and then the chime sounds. On the top of the clock, is an image of a cock, which twice in the day crows aloud and claps his wings. This clock is in the inside of the church, and is decorated with many beautiful pictures.

REMARKABLE WATCH.

In the Academy of Sciences at St. Petersburg, in Russia, is a watch about the size of an egg. Within, is represented our Redeemer's tomb, with the stone at the entrance, and the sentinels upon duty. While a spectator is admiring this curious piece of mechanism, the stone is suddenly removed, the sentinels drop down, the angels appear, the women enter the sepulchre, and the same chant is heard, that is performed in the Greek Church on Easter Eve.

CLOCKS IN THE FORM OF CHARIOTS.

Two very remarkable clocks were made a few years since, and sent as presents from the East India Company to the Emperor of China.

They are in the form of chariots. In one of them, a lady is placed leaning her right arm upon a part of the

vehicle, under which is a clock of curious workmanship, little larger than a shilling. This strikes and repeats, and goes eight days. Upon the lady's finger sits a beautiful bird, set with diamonds and rubies, with its wings expanded in a flying posture. The body of this bird is not the bigness of the sixteenth part of an inch.

Over the lady's head, supported by a small fluted pillar, no bigger than a quill, are two umbrellas. Under the largest of these a bell is fixed, at a considerable distance from the clock, and seeming to have no connexion with it. From this, however, a communication is secretly conveyed to a hammer, that regularly strikes the hour. At the feet of the lady is a gold dog, before which, from the point of the chariot, are two birds, fixed on springs. Their wings and feathers are set with stones of various colours, and appear as if flying away with the chariot. A boy that lays hold of the chariot behind seems also to push it forward. The whole is of gold, most curiously executed, and set with rubies and pearls.

CURIOUS AUTOMATONS.

An automaton is a self-moving machine, without life. Machines of this kind are kept in motion by means of springs or weights. They were first made in very early times.

An artist constructed a toy for Louis, the Fourteenth, king of France, which displayed great ingenuity. It consisted of a carriage drawn by two horses, containing a little figure of a lady, with a coachman and attendants.

The coachman smacked his whip. The horses moved their legs naturally, and when the carriage arrived opposite to the king's seat, it stopped. The page stepped down and opened the door; the lady alighted, with a courtesy, and presented a petition to Louis. After waiting some time she again courtesied and re-entered the carriage, when the coachman whipped up his horses and drove on.

Some figures have been formed that could write, dance to music, play on the flute, and speak. A clock was presented to the king of Spain, which, among other curiosities, had a sheep that imitated the bleating of a natural one; and a dog watching a basket of fruit, that barked and snarled when any one offered to take it away. Besides these, there were a variety of wonderful human figures.

AUTOMATON SPIDER.

This surprising piece of mechanism, made of steel, was recently exhibited in England. It comes out of a box, and runs backward and forward on a table; stretches out its paws, and draws them in, as if at will; moves its horns and claws, and opens them with ease.

This wonderful little figure must excite our admiration the more, as it has no other power of action than the mechanism contained in its body. It is composed of one hundred and fifteen different pieces.

AUTOMATON SINGING BIRD

M. Maillardet, an artist of great ingenuity, constructed an oval box, about three inches in length: the lid flew

up, and a bird of beautiful plumage, no larger than a small humming bird, started up from its nest. Its wings fluttered, and its bill opening with a tremulous vibration, it began to warble. After continuing a succession of notes, which would fill a large apartment, it darted down into its nest, and the lid closed of itself. The machinery was here contained in a very narrow compass, and could produce four different kinds of warbling. It was put in motion by springs which preserved their action during four minutes.

WRITING AUTOMATON.

The same artist constructed a writing boy, who is exhibited kneeling on one knee. An attendant having dipped his pencil, and laid the paper before him, he executes drawings, and writes French and English sentences, in a very superior manner. Every natural motion of the fingers, elbows, eyes, &c. is correctly imitated. The first of these figures is said to have cost the artist seven thousand dollars in its construction.

AUTOMATON CHESS PLAYER.

This astonishing piece of mechanism was the invention of Wolfgang de Kempelen, a Hungarian gentleman, who died at Vienna in 1804.

The room where it was exhibited had an inner apartment, in which appeared the figure of a Turk, as large as life, sitting behind a chest of three feet and a half in length, two feet in breadth, and two feet and a

half in height. The figure is attached to the chest by the wooden seat on which it sits, and the whole is placed upon castors, so that it may easily be moved to any part of the room. On the plain surface formed by the top of the chest is placed an immoveable chess-board, upon which the figure has its eyes fixed. Its right arm and hand are extended on the chest.



The exhibitor begins by wheeling the chest to the entrance of the apartment within which it stands, and in face of the spectators. He then opens certain doors contrived in the chest, and the long shallow drawer in the bottom, and raising the robes which cover the figure of the Turk, displays the whole internal construction to the spectators.

The chest is divided by a partition into two unequal chambers. That to the right is the narrowest, and is filled with little wheels, levers, cylinders, and other machinery used in clock-work. The body and lower parts of the figure contain tubes, which seem to be conductors to the machinery. After a certain time, the exhibitor recloses the doors of the chest and the drawer, makes some arrangements in the body of the figure, winds up the works with a key inserted into a small opening on the side of the chest, places a cushion for the left arm of the figure to rest upon, and invites any individual present to play a game of chess.

In playing, the automaton always has the first move. At the commencement of the game it moves its head as if taking a view of the board ; the same motion occurs at the close. In making a move it slowly raises its arm and directs it towards the square of the piece to be moved. Its hand and fingers open on touching the piece, which it takes up, and conveys to any proposed square. The arm then returns with a natural motion to the cushion on which it rests.

During the time that the automaton is in motion, a low sound of clock-work running down is heard. This ceases soon after its arm returns to the cushion, and then the antagonist may make his move. The works are wound up at intervals, after ten or twelve moves, by the exhibitor, who is usually employed in walking up and down the apartment in which the automaton is shown.

Various conjectures have been made as to the means

by which the action of this machine is directed. The most probable supposition is that a small man is ingeniously concealed in the drawer or chest.

The chess-player is now in the possession of Mr. Maelzel, who has himself invented several ingenious automata, which have for some years past been exhibited in the United States.

MECHANICAL THEATRE.

This curious piece of mechanism exhibited at Paris is thus described by the Rev. Mr. Evans :

The spectacle in the Picturesque and Mechanical Theatre consisted of scenery and appropriate little moving figures. The first scene was a view of a wood in early morning ; every object looked blue, fresh and dewy. The gradations of light, until the approach of meridian day, were admirably represented. Serpents were seen crawling in the grass. A little sportsman entered with his fowling piece, and imitated all the movements natural to his pursuits. A tiny wild duck rose from a lake and flew before him. He pointed his gun, and changed his situation,—pointed again and fired. The bird dropped ; he threw it over his shoulder, fastened his gun and retired.

Wagons, drawn by horses four inches high, passed along. Groups of peasantry followed, imitating all the actions of life. Amongst several other scenes was a beautiful view of the Bay of Naples, and the great bridge, over which little horses with their riders passed in the

various paces of walking, trotting and galloping. The smallest circumstances were attended to. The ear was beguiled with the patting of the horses' hoofs upon the pavements, and some of the little animals reared, and ran before the others.

There were also some charming little sea-pieces, in which the vessels sailed with their heads towards the spectators, and manœuvred in a surprising manner. The whole concluded with a storm, and shipwrecked sailors were seen floating in the water, and then buried in the surge. One of them rose again and reached a rock. Boats put off to his relief, and perished in the attempt. The little figure was seen displaying the greatest agonies.

The storm subsided. Tiny persons appeared upon the top of a projecting cliff, near a watch tower, and lowered a rope to the little sufferer, which he caught, and after ascending to some height by it, overwhelmed by fatigue, lost his hold. After recovering from the fall, he renewed his efforts, and at length reached the top in safety, amidst the shouts of the spectators.

CURIOUS CLYPSEDRA OR WATER CLOCK.

The clock presented by the Kalif Haroun-al-Rashid to the French emperor Charlemagne deserves to be mentioned, as a remarkable piece of ingenuity. It was a clock moved by water. In the dial were twelve small doors, forming the divisions of the hours. Each of these doors opened in succession at the hour marked, and let out little balls, which, falling on a brazen bell, struck the

hour. The doors continued open till twelve o'clock, when twelve little knights, mounted on horseback, came out together, paraded round the dial and shut all the doors.

REMARKABLE QUADRUPEDS.

THE HORSE.



The horse, of all animals has the most complete proportion and elegance in every part of his body. The regularity of the proportions of his head gives him an air of sprightliness, which is well supported by the beauty of his chest. His eyes are large and lively, and his ears well made ; his mane suits well his head, ornaments his neck, and gives him an air of strength and haughtiness.

The duration of the life of the horse is about twenty-five or thirty years.

The Arabian horses are the handsomest known in Europe. They are said to be descended from the wild horses in the deserts of Arabia, which have multiplied so much, that all Asia and Africa are full of them ; they are so swift that some will outstrip even the ostriches in their course. The Arabians of the desert, and the people of Libya breed a great number of these horses for hunting, but neither use them in travelling nor in their wars. They send them to pasture while there is grass for them, and when that fails, they feed them only with dates and camel's milk, which makes them nervous, nimble and lean. They lay snares for the wild horses, and eat the flesh of the young ones, which they consider very delicate food. These wild horses are smaller than the tame ones, and are commonly ash-coloured.

Let an Arabian be ever so poor, he has horses. As he has only a tent for his house, this tent serves him also for a stable. The mare, colt, husband, wife and children lie promiscuously together ; and the little ones will lie on the body and neck of the mare and colt, without receiving the slightest ill treatment. The mares are so accustomed to live in this familiarity, that they will suffer any kind of play.

The Arabians treat them kindly, talk and reason with them, take great care of them, and never use the spur without necessity. As soon, therefore, as they feel their flank tickled with the stirrup-iron, they set out im-

mediately with incredible swiftness, and leap hedges and ditches with the utmost agility ; and if their rider happens to fall, they are so well broken, that they will stop short even in the most rapid gallop. All Arabian horses are of a middling size, very easy in their manner, and rather thin than fat.

An affecting story is told of the attachment which the Arabians feel for their horses. A poor Arabian of the desert was owner of a single mare, which the French consul at Said was desirous of purchasing, that he might send her as a present to Louis XIV.

The Arab hesitated long, but want drove him to consent, on condition of receiving a large sum, which he himself named. The Arab, clothed in his rags, brought his courser to the consul, dismounted, looked first at the tempting gold, and then steadfastly at his mare. But here his heart failed him. He heaved a deep sigh, and fondly exclaimed, "To whom am I going to give thee up ? To Europeans ! who will tie thee close, who will beat thee, who will render thee miserable ! Return with me, my beauty ! my jewel ! and rejoice the hearts of my children." Then, springing on the back of the animal, he was out of sight in a moment.

The Tartars live with their horses nearly in the same manner as the Arabians do. When they are about seven or eight months old, the young children mount them, and make them walk and gallop a little way by turns. They thus break them by degrees, and oblige them to undergo long fastings. For racing or hunting, however, they

never mount them till they are six or seven years old. At this time they make them endure the severest fatigue; such as travelling two or three days together without any other food than a handful of grass every eight hours, and without drinking but once in twenty-four hours.

The swiftness and strength of the horse are wonderful. Childers, the famous racer, has been known to pass over eighty-two feet and a half in a second. Others have trotted more than twenty-one miles in an hour. There have been mill-horses, which at one load, have carried thirteen measures, or nine hundred pounds of corn.

The American Indians are abundantly supplied with horses, many of which are very fleet, and capable of great endurance. A savage warrior mounted upon one of these with his long spear, makes a formidable appearance.

The Indians take no pains to breed horses, but supply themselves by catching and taming as many as they want. A method sometimes adopted by hunters for taking the wild horse is to shoot the animal through the neck, using the requisite care not to injure the spine. A horse may receive a rifle ball through a particular part of the neck, without sustaining any permanent injury. The blow, however, is sufficient to occasion a temporary suspension of the powers of life, during which the animal is easily taken. This is called *creasing*, and requires great skill in the use of the rifle.

Major Long remarks that, in the habits of the wild horse, we find little unlike what is seen in the domestic

animal. He becomes the most timorous and watchful of the inhabitants of the wilderness. It would appear, from the paths that are seen, that they sometimes perform long journeys.

THE ORANG-OUTANG.

The hair of the Orang-Outang is of a brownish red colour, and covers his back, arms, legs, and the outside of his hands and feet. On the back, it is in some places six inches long, and on his arms five. The face has no hair except on its sides, somewhat in the manner of whiskers, and a very thin beard. The palms of the hands and feet are quite naked. This animal is incapable of walking in a perfectly erect posture.

An individual of this species was carried from Batavia to Java, and from Java embarked on board the *Cæsar*, to be conveyed to England. His favourite amusement in Java was in swinging from the branches of trees, in passing from one to another, and in climbing over the roofs of houses : on board, in hanging by his arms from the ropes, and in romping with the boys of the ship. He would entice them into play by striking them with his hand as they passed, and bounding from them, but allowing them to overtake him, and engage in a mock scuffle, in which he used his hands, feet and mouth.

On board ship he usually slept at the mast head, after wrapping himself in a sail. In making his bed, he used the greatest pains to remove every thing out of his way, that might render the surface on which he intended to lie, uneven : and, having satisfied himself with this part of the arrangement, spread out the sail, and lying down

upon it on his back, drew it over his body. If all the sails happened to be set, he would hunt about for some

THE ORANG-OUTANG.



other covering, and either steal one of the sailors' shirts or jackets, or empty a hammock of its blankets.

His food in Java was chiefly fruit. He preferred coffee and tea, but would readily take wine, and displayed his attachment to spirits by stealing the captain's brandy bottle. After his arrival in London, he preferred milk and beer to any thing else, but sometimes drank wine and other liquors.

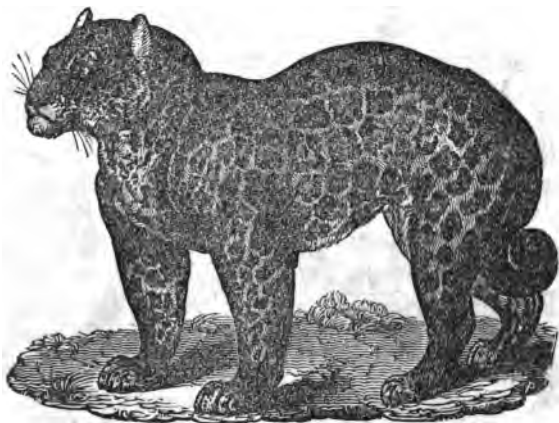
He was never seen to exhibit violent alarm but on two occasions. On seeing eight large turtles brought on board, whilst the Cæsar was off the Island of Ascension, he climbed with all possible speed to a higher part of the ship than he had ever before reached. Looking down from this secure eminence, he projected his long lips into the form of a hog's snout, uttering at the same time a sound, something between the croaking of a frog and the grunting of a pig. After some time he ventured to descend, but with great caution, and still keeping at a distance from the turtles. He ran to the same height, and uttered the same sounds, on seeing some men bathing and splashing in the sea.

This animal survived his arrival in England about two years, and during this period was in the care of Mr. Cross at Exeter Change, where he was much noticed and caressed for the gentleness of his disposition. There was no need of personal confinement ; to his keepers, and to those whom he knew by their frequent visits, he displayed a decided partiality.

Of many attempts made to transport the Orang-Outang to Europe, only two or three have been successful. One was brought in the year 1831 from Batavia to Boston in

New England. It arrived in good health and has every prospect of enduring the climate. It is a female of about eighteen months old, and was procured originally in Borneo.

THE JAGUAR.



This is one of the most formidable animals of the New World, and is sometimes called the American Tiger. It is found in the southern divisions of America, but does not appear to inhabit it to the northward of the isthmus of Darien. He is larger than the leopard, often measuring four or five feet from the nose to the root of the tail. His head is larger and rounder than the leopard's, his limbs are shorter, and his tail is of such a length as to allow the tip to trail on the ground when the animal stands erect.

The Jaguar is a solitary animal, residing in forests, especially near large rivers. He is an excellent swimmer. D' Azara relates that after a Jaguar had destroyed a horse, he dragged the body sixty paces, and then swam with it over a broad and deep river. He is equally expert at climbing.

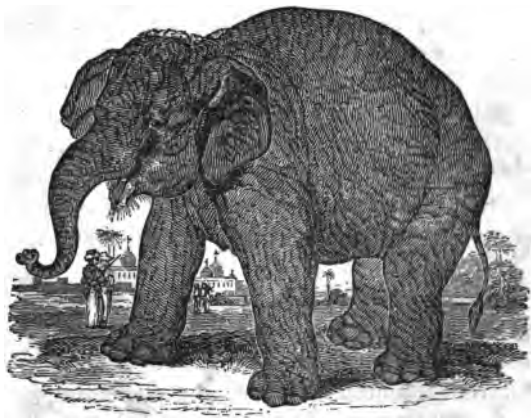
The taking of the Jaguar forms one of the warlike distinctions of the Indians of South America, particularly of the Laneros, or men of the plains. The chief inducement that the Laneros has for pursuing the Jaguar is the honour of the feat : as the killing seven Jaguars, or six tigers, will give him the title of *guapo*, or warrior, and the privilege of choosing the fattest young woman in the tribe for his wife. According to their notions, the lady who has the most flesh has the most beauty ; and the prospect of such a prize is the most powerful excitement.

They hunt the animal in various ways, either with a pack of dogs, or by means of the *lasso*, or noose. The Indians are even hardy enough to attack him, single handed, armed with a lance of five feet in length, and their left arm covered with a sheep skin. By means of this they are able to frustrate the first onset of the furious creature, and plunge their weapon into his body before he has time for a second attack.

THE ELEPHANT.

This wonderful creature unites the best qualities of the most sagacious animals. He possesses the judgment of the beaver, the dexterity of the monkey, and the affec-

tion and fidelity of the dog. To the most prodigious strength, he joins courage, prudence, coolness, and obedience: he never attacks any but those who have injured him: and feeding chiefly upon vegetables, he is not naturally an enemy to other animals. Even in a wild



state, the Elephant is neither bloody nor ferocious; his manners are social, and he commonly wanders in company. He is very easily tamed, and when once tamed, becomes the most tractable and submissive creature in the world.

He never mistakes the words of his master, but receives and executes his orders with prudence and eagerness. He is easily taught to bend the knee to assist those who will ride upon his back; he caresses his

friends with his trunk ; he is fond of golden harness or magnificent trappings ; he is easily put to the traces of carts, and draws ships upon occasion. His leader is mounted on his neck, and makes use of an iron rod crooked at the end, to direct his motions.

The Elephant's sense of feeling centres in his trunk, and that organ is as delicate as in the hand of a man. The extremity of this trunk ends in an edge, which projects above like a finger. It is with this sort of finger that the Elephant does whatever we do with ours. He picks up from the ground the smallest pieces of money ; he gathers nuts and flowers ; he unties knots, opens and shuts doors, turning the keys and bolting them ; he learns to draw regular characters with an instrument as small as a pen.

The Elephants of the Indies easily carry burdens of three or four thousand weight. The smallest, that is, those of Africa, lift up freely with their trunks burdens of two hundred pounds weight, and place them on their shoulders. The tame Elephants travel without fatigue fifteen or twenty leagues a day, and when hurried, they may travel thirty-five or forty leagues.

The Elephant is a long lived animal. Some authors have said that he lives four or five hundred years : it is most probable that he lives about one hundred and fifty. In temperate or cold climates he lives but a short time. The Elephant which the king of Portugal sent to Louis XIV in 1668, which was then but four years old, died in his seventeenth year, in the menagerie of Versailles,

where he was treated with care and tenderness, and fed with profusion.

He had every day four pounds of bread, twelve pints of wine, two buckets of porridge, with four or five pounds of bread, and two buckets of boiled rice, without reckoning what was given to him by visitors. Besides this, he had every day a sheaf of wheat to amuse himself; for, after he had eaten the ears, he made a kind of whip of straw, and used it to drive away the flies. He delighted in breaking the straw in small bits, which he did with great dexterity, with his trunk; and, as he was led to walk daily, he plucked the grass, and eat it.

An elephant in Adsmeer, which often passed through the market, always received from a certain herb woman a handful of greens. At length he was seized with a periodical fit of madness, broke his fetters, and ran wild through the market-place. He caused the greatest terror and confusion, trampling every thing under his feet. With the rest of the crowd, the poor herb woman took to flight, and in the hurry of the moment forgot a little child she had with her. The animal, recollecting the spot where his friend usually sat, took up the infant gently in his trunk, and placed it in safety on a neighbouring stall.

Another elephant in a fit of rage had killed his keeper. His wife, witness of this catastrophe, took her two children, and threw them at the feet of the still furious animal: saying, *Since thou hast killed my husband, take also my life, and that of my children.* The elephant stopped short,

grew calm, and, as if he had been moved with regret and compassion, took with his trunk the largest of the children, placed it on his neck, adopted him for his leader, and would never after be mounted by any other person.

At Achen, in the island of Sumatra, there was an elephant who was accustomed, as he passed along the side of the street, to reach his trunk in at the doors and windows, begging for fruit. One morning, as he was going to the river to be washed, with his rider on his back, he put his trunk into the window of a tailor. Instead of giving him what he wanted, the tailor pricked him with his needle.

The elephant seemed to take no notice of the affront, but went calmly on to the river and washed. After this, he disturbed the water with one of his fore feet, so as to make it muddy, and then sucked up a great quantity of it into his trunk. Passing quietly along the same side of the street, when arrived at the tailor's shop, he put in his trunk at the window, and spirted out the water with such prodigious force, that the offender and his journey-men were blown off the board, almost frightened out of their wits.

A painter was desirous of drawing an elephant at Versailles in an extraordinary attitude, which was with his trunk erect and his mouth open. The painter's boy, to make him remain in that position, threw fruits into his mouth. But when he frequently deceived him, making only an offer to throw the fruit, the elephant grew angry.

But as if understanding the cause of the deception, he turned his resentment upon the master ; and taking a quantity of water in his trunk, spouted it over the paper, and completely ruined the drawing.

THE KANGUROO.



There exist several species of the Kangaroo, all of which are natives of New Holland. The principal of these is the Great Kangaroo, which measures nine feet in length, from the tip of the nose to the end of the tail, and when full grown, weighs two hundred pounds. The head and neck are very small, while the lower parts gradually expand to a very great size. The fore legs are hardly nineteen inches long, while the hinder ones,

which are perfectly bare and callous beneath, measure three feet seven inches.

The head bears some resemblance to that of the deer, having a mild and placid visage ; the ears are moderately large and erect, the eyes full, and the mouth rather small. The general colour is a pale brown, inclining underneath to white. From the great difference in length, of the fore and hind legs, the pace of this animal consists in vast springs or bounds, which are said at times to exceed twenty feet in length.

In a state of rest, it sits erect on the whole length of the hind feet, supporting itself by the base of the tail. This it sometimes uses as a weapon of defence, and it is of such prodigious strength, as to be able to break the leg of a man at a single blow. The female seldom produces more than one young one at a birth, which when first brought forth is not above an inch in length.

The Kangaroo may be rendered tame. "One of the largest Kangaroos I have seen," says Mr. Cunningham, "is domesticated, and a mischievous wag he is; creeping and snuffing cautiously towards a stranger, with such an innocently expressive countenance that roguery could never be suspected to exist under it. When he has attained what he thinks a sufficient introduction, he places his fore-paws on your shoulders, as if to caress you, and raising himself suddenly upon his tail, administers such a well put push with his hind legs, that it is two to one but he drives you heels over head ! This is all done in what he considers facetious play, and with a

view of giving you a hint to examine your pockets, and see what sweetmeats you have got for him. If the door is ajar, he will gravely take his station behind your chair at meal time, giving you a gentle kick every now and then, if you fail to help him as well as yourself."

THE RHINOCEROS.



After the elephant, the Rhinoceros is the most powerful of animals. He is six or seven feet in height, twelve feet in length, and about as much in circumference. But though he resembles the elephant in bulk, he differs widely from that sagacious creature in his natural faculties and intelligence. He is superior to other animals only in strength, size, and an offensive and peculiar weapon which he carries upon his nose. This is a very

hard and solid horn, so placed as to be very useful and dangerous.

A Rhinoceros was sent from Bengal to London in 1739. Though he was only two years old, his food and his voyage cost nearly five thousand dollars. He lived upon rice, sugar and hay. They gave him daily seven pounds of rice, mixed with three pounds of sugar, and a great quantity of hay and green grass. His drink was nothing but water, taken in large quantities.

This animal is something like a hog in its nature, blunt and grunting, without intellect or docility. It resembles the hog, also, in its love for the mud and mire ; liking damp and marshy places, and seldom leaving the banks of rivers. In the first month, the Rhinoceros is not much bigger than a large dog, and when first brought forth has not the horn upon his nose. When he is three years old, this horn is only an inch long ; in his sixth year it is about ten inches ; and as some of these horns have been seen nearly four feet long, it would appear that they grow during the whole life of the animal. This is probably seventy or eighty years.

These animals do not herd together, nor march in troops, like the elephant ; they are wilder, more solitary, and perhaps more difficult to be hunted and subdued. They never attack men unless provoked, but then they become very furious and formidable. Their skin is so hard as to resist the sword and scimeter ; and it cannot even be pierced by darts, lances or musket-balls. The only penetrable places in the body are the belly, the eyes,

and about the ears. Instead of attacking this animal standing, the huntsmen follow him at a distance by his track, and wait to approach him at the time that he sleeps or rests himself.

THE ZEBRA.



This is perhaps the handsomest and most elegantly clothed of all quadrupeds. He has the shape and grace of the horse, the swiftness of the stag, and a striped robe of black and white arranged with extreme regularity and beauty. These bands of black and white are the more singular, as they are straight, parallel, and very exactly divided ; not only over the body, but over the head, the thighs, the legs, and even the ears and the tail.

The Zebra is chiefly found in the southern parts of Africa ; often near the Cape of Good Hope ; and a fine of money is fixed on any person who shoots one of them. Such of them as are caught alive are presented to the governor. Several have been brought to England, but with a single exception they have displayed great wildness, and even ferocity. In several cases they have attempted to injure spectators, and have not even spared their keepers.

THE HIPPOPOTAMUS.



This animal has a body longer and thicker than that of the rhinoceros, but his fore legs are much shorter. His head is short, and thick in proportion to the body. He has no horns, and his usual voice resembles the neighing of a horse. From this he has probably received his name, which is derived from two Greek words, signifying the River Horse.

The male of this species is about eight feet eight inches long, fifteen feet in circumference, and six feet and a half in height. His legs are about two feet ten inches

long, the length of the head is three feet and a half, and the width of the mouth two feet four inches. Sometimes it attains a much greater size.

Notwithstanding his prodigious and formidable strength, the Hippopotamus is naturally gentle, and never makes an attack, except when annoyed or wounded. He delights much in water, and stays there as willingly as upon land. He swims quicker than he runs, pursues the fish and makes them his prey. Three or four of them are often seen at the bottom of a river, forming a kind of line, and seizing upon such fish as are forced down by the violence of the stream. When he quits the water to graze upon land, he destroys a great quantity of sugar-canes, rushes, millet, rice, and roots, and does much injury to cultivated lands. As he is more timid, however, upon the land than in the water, he is very easily driven away.

His resource, when he finds himself in danger, is to plunge into the water, and go a great distance before he reappears. He commonly retreats from his pursuers. But if he is wounded, he becomes irritated, and immediately facing about with great fury, rushes against the boats, seizes them with his teeth, often tears pieces out of them, and sometimes sinks them under water.

"We dare not," says a traveller, "irritate the Hippopotamus in the water, since an adventure happened, which was near proving fatal to three men. They were going in a small canoe, to kill one in a river, where there was about eight or ten feet water. After they had dis-

covered him walking at the bottom, according to his custom, they wounded him with a long lance. This so greatly enraged him, that he rose immediately to the surface of the water, regarded them with a terrible look, opened his mouth, and, at one bite, took a great piece out of the side of the canoe. He nearly overturned it, but replunged, almost directly to the bottom of the water."

Major Denham furnishes the following amusing account :

"It was intended this evening to have killed an Hippopotamus, an animal which exists in great numbers in the lake, on the border of which we were encamped. A violent thunder-storm, to our great disappointment, prevented our witnessing so novel a species of sport. The flesh is considered a great delicacy.

"On the morrow we had a full opportunity of convincing ourselves that these uncouth and stupendous animals are very sensibly attracted by musical sounds. As we passed along the borders of Lake Muggaby at sunrise, they followed the drums of the different chiefs the whole length of the water, sometimes approaching so close to the shore, that the water they spouted from their mouths, reached the persons who were passing along the banks. I counted fifteen at one time sporting on the surface ; and my servant Columbus shot one of them in the head, when he gave so loud a roar, as he buried himself in the lake, that all the others disappeared in an instant."

THE DOG



Volumes have been filled with anecdotes of the sagacity and affection of dogs. The few which follow have been selected from the many hundred which might be given.

A grocer in Edinburgh had a dog which was the amusement and wonder of the neighborhood. A man who went through the streets ringing a bell and selling penny pies, happened one day to treat this dog to a pie. The next time he heard the pie-man's bell, the dog ran to him with impetuosity, seized him by the coat, and would not suffer him to pass. The man, who understood what the animal wanted, showed him a penny, and pointed to his master, who stood at the street door and saw what was going on. The dog immediately supplicated his master by many humble gestures and looks. The master put a penny into the dog's mouth, which he instantly delivered to the pie-man, and received his pie. This traffic between

the pie-man and the grocer's dog continued to be daily practised for many months.

At a convent in France, twenty poor people were served with a daily dinner. A dog belonging to the convent did not fail to be always present, to receive the scraps which were now and then thrown to him. The portions were served by a person at the ring of a bell, and delivered out by a certain machine, that by turning round on a pivot, conveys the food to whoever needs it, without discovering the person who distributes it.

One day the dog had received what he thought less than his share, and determined to see what he could do for himself. He waited till all the visitors were gone, and then took the rope in his mouth, and rang the bell. His trick succeeded. He repeated it the next day, and continued to repeat it with the same good fortune.

The cook at length discovered that twenty-one portions were given out, instead of twenty, and watched to discover the intruder. He noticed the different persons that came for their dinner, and saw that they all had a right there. Imagine his astonishment when he saw the dog, who had waited with great deliberation till the visitors had gone, proceed with the utmost coolness to pull the bell. The matter was related to the convent, the dog was permitted to ring the bell every day for his dinner, and a mess of broken victuals was always afterwards served out to him.

Mr. C. Hughes, a country comedian, had a wig which generally hung on a peg in one of his rooms. He

day lent the wig to a brother player, and some time afterwards called on him. Mr. Hughes had his dog with him, and the man happened to have the borrowed wig on his head. Mr. Hughes stayed a little while with his friend ; but, when he left him, the dog remained behind. For some time he stood looking full in the man's face ; then, making a sudden spring, he leaped on his shoulders, seized the wig and ran off with it as fast as he could. When he reached home, he endeavoured, by jumping, to hang it up in its usual place.

In the year 1825, there was a dog constantly to be seen in St. Bride's church yard, in London, which for two years had refused to leave the place where his master was buried. He did not appear miserable ; he evidently recollected their old friendship and imagined that it would again be renewed. The inhabitants of the houses round the church daily fed the poor creature, and the sexton built him a little kennel. But he would never quit the spot, and there he died.

THE PRONG HORNED ANTELOPE.

This animal has a graceful form and slender head, with large eyes, and long and delicate limbs. The horns are black and rise directly upwards. The upper parts of the body are of a clear yellowish brown colour, the under parts are pure white.

The Prong-horned Antelopes are found on the banks of the Saskatchewan, and on the plains of the Columbia, to

the west of the Rocky Mountains. They frequent open prairies and low hills, interspersed with clumps of wood. During the summer, they feed on the grass of the plains,



but retire to the mountains at the commencement of winter, and subsist there during that season on leaves and shrubs.

The Indian hunters have recourse to various tricks in order to bring the Antelope within gun shot. These are lying down on their backs, and kicking their heels in the air, holding up a white rag ; or clothing themselves in a

white shirt, and showing themselves only at intervals. In this manner the curiosity of a herd of Antelopes is so much roused that they wheel round the object of their attention, and at length approach near enough to enable the hunter to make sure of his mark.

They are not much sought after, however, by the Indians, as their skins are of no value, and their flesh is palatable only when no better is to be procured.

THE GAZELLE, OR ANTELOPE.

The Gazelle is, for the most part, more delicately and finely limbed than even the roe-buck ; its hair is as short, but finer and more glossy. In swiftness it surpasses the deer, running and springing with vast bounds, and leaping with surprising activity. It frequently stops for a moment in the midst of its course, to gaze at its pursuers, and then resume its flight. Of all the animals in the world, it has the most beautiful eye, which is at once meek, and yet extremely brilliant.

The Gazelles are, in general, inhabitants of the warmer climates, and contribute, among other ornaments, to add beauty to those forests that are forever green. They are often seen feeding in herds on the sides of the mountains, or in the shade of the woods ; and fly all together upon the smallest approaches of danger. They bound with such swiftness, and are so very shy, that dogs or men vainly attempt to pursue them.

Of this numerous tribe of animals, there is perhaps no

species so truly elegant as that which is called the common Antelope. It is very numerous in Barbary, and in all the northern parts of Africa. Its general colour is a dusky brown mixed with red ; the orbits of the eyes are white, and there is a small patch of the same colour, on each side of the forehead ; the tail is short. The horns, which are about sixteen inches long, are black and have three curves. The female has no horns, and may also be distinguished by a white stripe on the flanks.

The following incident is related by Major Denham. "We had also this day a dish of venison, one of the Arabs having succeeded in shooting two Gazelles, many of which had crossed our path for the last three days. On finding a young one, only a few days old, the tawney wily rogue instantly lay down in the grass, imitated the cry of the young one, and as the mother came bounding towards the spot, he shot her in the throat."

THE DUCK-BILLED PLATYPUS.



This wonderful creature, which unites the bill of a bird with the formation of a quadruped, is a native of New

Holland. The union is so singular that it was at first supposed to be a trick of some persons for the sake of imposing upon collectors. It has a depressed body, covered with a soft fur, dark brown above, and of a rusty white beneath. The head is flattish, and the snout so exactly resembles that of some broad-billed species of duck, that it might easily be mistaken for such. The tail is flat, furry, and of the same colour as the body.

The length of the whole animal, from the tip of the beak to that of the tail, is thirteen inches ; of the beak, an inch and a half. The legs are very short, and terminate in a broad web. On the upper part of the head, on each side, a little beyond the beak, are situated two oval white spots, in the lower part of each of which the eyes are imbedded.

From the general form of this animal, and particularly its bill and webbed feet, we may suppose that it lives in watery situations ; that it has the habit of digging or burrowing in the banks of rivers, or under ground ; and that it feeds upon water plants and animals.

THE LION.

The outward form of the Lion seems to speak the superiority of his internal qualities. His figure is striking, his look confident and bold, his gait proud, and his voice terrible. He is in every respect compact and well proportioned, a perfect model of strength joined with agility. The largest lions are about eight or nine feet in length ; the female is about one-fourth less than the male.

When hungry, the Lion boldly attacks all animals that come in his way, but as he is very formidable, and as they all seek to avoid him, he is often obliged to hide, in order to take them by surprise. For this purpose, he crouches upon his belly, in some thicket, or among the long grass which is found in many parts of the forest.



In this retreat he continues patiently till his prey comes within proper distance; he then springs after it with such force, that he often seizes it at the first bound. He devours a great deal at a time, and usually fills himself for two or three days to come. He drinks as often as he meets with water, lapping it like a dog.

The Lion generally requires about fifteen pounds of

raw flesh in a day, and always chooses to hunt for fresh spoil rather than return to that which he had half devoured before. While young and active, he subsists on what he can obtain by the chase, and seldom quits his native deserts and forests ; but when he grows old and heavy, he approaches the habitations of man, and becomes a very dangerous neighbour. The flesh of the camel is said to be more agreeable to him than that of any other animal.

However terrible the Lion may be, it is not uncommon, with dogs of a large size, and well supported with a proper number of men on horseback, to chase him, dislodge him, and force him to retire. But for this enterprise it is necessary that the dogs, and even the horses, should be previously disciplined ; since almost all animals tremble and fly at the very smell of the Lion.

Though the skin of the Lion is firm and compact, it is not proof against a musket ball, nor even a javelin ; but he is seldom known to be dispatched at one blow. He is frequently taken in a trap, by digging a hole in the ground, covering it slightly with earth and sticks, and fastening some living animal over it as a bait. When thus entrapped, all his fury subsides, and in the first moments of his surprise he may easily be chained, muzzled, and conducted to a place of security.

Major Denham furnishes us with the following anecdote. "The skin of a noble Lion was sent me, which had been taken near Kabshary, measuring from the tail to the nose fourteen feet two inches. He had devoured

four slaves, and was at last taken by the following stratagem. The inhabitants assembled together, and with loud cries and noises drove him from the place where he had last feasted. They then dug a very deep blaqua, or circular hole, armed with sharp pointed stakes ; which they most cunningly covered over with stalks of the gussub. A bundle of straw enveloped in a robe, was laid over the spot, to which a gentle motion, like that of a man turning in sleep, was occasionally given by means of a line carried to some distance.

“ On their quitting the spot, and the noise ceasing, the Lion returned to his haunt, and was observed watching his trap for seven or eight hours ; by degrees approaching closer and closer. At length, he made a dreadful spring on his supposed prey, and was precipitated to the bottom of the pit. The Kabsharians now rushed to the spot, and before he could recover himself, despatched him with their spears.”

Mr. Park gives us the following account in his first expedition to Africa. “ As we were crossing a large open plain, where there were a few scattered bushes, my guide, who was a little way before me, wheeled his horse round in a moment, calling out something in the Foulah language, which I did not understand. I inquired in Mandingo what he meant ; *wava bili bili*, (a very large Lion) said he, and made signs for me to ride away ; but my horse was too much fatigued ; so we rode slowly past the bush from which the animal had given us the alarm. Not seeing anything myself, however, I thought my guide

had been mistaken, when the Foulah suddenly put his hand to his mouth, exclaiming, *Soubai an allahi*, (God preserve us !) and to my great surprise, I then perceived a large red Lion, at a short distance from the bush, with his head crouched between his fore paws.

“I expected he would instantly spring upon me, and instinctively pulled my feet from the stirrups, to throw myself on the ground, that my horse might become the victim rather than myself. But it is probable the Lion was not hungry, for he quietly suffered us to pass, though we were fairly within his reach. My eyes were so riveted upon this sovereign of beasts, that I found it impossible to remove them until we were at a considerable distance.”

REMARKABLE BIRDS.

THE OSTRICH.

The Ostrich is generally considered the largest of birds, but its size deprives it of the power of flying. The head and bill of this bird somewhat resemble those of a duck, and the neck may be compared to that of a swan, though it is much longer. It is usually seven feet high from the top of the head to the ground, but it sometimes reaches to the height of nine feet. One of the wings, stretched out with the feathers, is three feet in extent.

The plumage is generally black and white. There are no feathers on the sides, nor on the thighs, nor under the wings. The head and upper part of the neck

are covered with hair. At the end of each wing there



is a kind of spur, almost like the quill of a porcupine. It

is an inch long, of a horny substance and hollow. The legs are covered before with scales. The end of the foot is cloven, and has two very large toes, of unequal sizes.

The Ostrich is a native only of the torrid regions of Arabia and Africa, and has never bred out of the countries which first produced it. In these formidable regions, Ostriches are seen in large flocks, which appear to the distant spectator like a regiment of cavalry, and have often alarmed a whole caravan. They are the most voracious of animals, devouring leather, grass, hair, stones and iron. They lay very large eggs, some of which are above five inches in diameter, and weigh above fifteen pounds. These eggs often contain a number of small, hard, oval-shaped pebbles, which are sometimes set and used as buttons. The female lays generally from thirty to forty eggs in the season.

Among the ancients, whole nations received the name of Strathophagi, Ostrich-eaters, from their fondness for the flesh of this bird. Even at this period, some of the savage nations of Africa hunt them not only for their plumage, but because they consider them dainty eating. They sometimes also breed them tame, for the sake of the young one, the female of which is considered the greatest delicacy. A single egg is said to be a sufficient entertainment for eight men. The skin of the Ostrich is so thick that it is used for leather by the Arabians, and of the eggs drinking cups are made. The value of the

plumage is well known to the belles of Europe and the United States.

The Strathophagi had an ingenious mode of taking these animals. They disguised themselves in the skin of an Ostrich, and putting one of their arms through the neck, they imitated all its motions. By this means, they are said to have been enabled to approach and take them at pleasure.

Ostriches are sometimes bred in flocks, for they are easily tamed. In this domestic state they play and frisk about with much vivacity, and are tractable and familiar towards those who are acquainted with them. To strangers however they are often fierce, and will attack them with fury, making an angry hissing noise, having their throats inflated and their mouths open. During the night they frequently utter a discordant cry, which bears a resemblance to the distant roaring of a lion, or the hoarse tone of a bear or an ox when in great agony.

THE CONDOR.

The most romantic and wonderful stories were at one time told and believed, of the size and exploits of the Condor. Modern travellers, however, have exposed the exaggerations of former writers, and given a true description of this remarkable bird.

The length of a male specimen of the Condor, somewhat less than nine feet in the expanse of its wings, was three feet three inches from the tip of the beak to the extremity of the tail. Its height, when perching, with

the neck partly withdrawn, was two feet eight inches. Its beak was two inches and three quarters in length, and an inch and a quarter in depth when closed.



The head and neck are bare of feathers, and covered with a hard, wrinkled, dusky reddish skin, sprinkled with

a few short brown or blackish hairs. On the top of the head is an oblong firm coruncle or comb, covered by a continuation of the skin which invests the head. This is peculiar to the male. Behind the eyes, the skin of the neck is apparently gathered into a series of descending folds, extending over the temples to the under side of the neck, and capable of being dilated at pleasure, like that of the common turkey. Round the lower part of the neck, both sexes are furnished with a broad white ruff of downy feathers.

The general colour of the plumage in this bird is a bright black, mingled with a grayish tinge of greater or less intensity. The wings of the male are distinguished by large white patches. The tail is short and wedge-shaped. The legs are very thick and powerful, and coloured with a bluish gray.

The Condor has been observed throughout the whole range of the Andes in South America, but is much more common in Peru and Chili than any where else. It is most frequently met with at an elevation of from ten to fifteen thousand feet above the level of the ocean. Here they may be seen in small groups of three or four, sitting on the bold points of the jutting rocks, many of the most remarkable of which have received their names from the bird which haunts their pinnacles.

The habits of the Condor unite the ferocity of the eagle, with the disgusting filthiness of the vulture. Although like the latter it appears to prefer the dead carcass, it frequently makes war upon a living prey. The

gripe of its talons, however, is not sufficiently firm, to enable it to carry off its victim through the air. Two of them together will frequently attack a lama, a calf, or even a full-grown cow. They pursue the wretched animal with the utmost pertinacity, tearing it with their beaks and talons, till it falls exhausted through loss of blood. Then having first seized upon its tongue, they proceed to tear out its eyes, and commence their feast upon these favourite morsels.

The Condor is remarkably tenacious of life. After having been hung sometime by the neck in a noose, it has been observed, when taken down for dead, to rise and walk away as rapidly as if nothing had happened. It will also receive several pistol-bullets in the body, without appearing much incommoded. The great size and strength of its plumage defends its body to a considerable degree from the effects of a shot. It is easily killed when shot or struck sufficiently hard about the head.

When first taken captive, the Condor is sulky and timid, but it soon becomes savage and dangerous. After a time, however, it seems to become reconciled to confinement, and bears it tolerably well.

THE BALD EAGLE.

This remarkable bird is common to both continents, and is met with from a very high northern latitude to the borders of the torrid zone. It is chiefly found, however, in

the vicinity of the sea, and along the shores and cliffs of our lakes and large rivers.



“Formed by nature for braving the severest cold ; feeding equally upon the produce of the sea and of the land ; possessing power of flight capable of outstripping even the tempests themselves ; unawed by any thing but man ; and from the ethereal height to which he soars, looking abroad at one glance, on an immeasurable expanse of forests, fields, lakes and ocean deep below him, he appears indifferent to the little localities of change of seasons ; as in a few minutes he can pass from summer to winter, from the lower to the higher regions of the atmosphere, the abode of eternal cold ; and thence des-

pend at will to the torrid or the arctic regions of the earth."

The residence of the Bald Eagle is selected with an eye to his fondness for fish. In procuring these, he displays in a very peculiar manner the fierceness and energy of his character. Sitting on the high dead limb of some gigantic tree, overlooking the shore and ocean, he watches the movements of the various feathered tribes that are wheeling and sailing about below him.

His attention is arrested by a bird hovering high above all the rest. He knows him by his wide curvature of the wing, and his sudden suspension in the air, to be the *Fish Hawk*, settling over some devoted victim of the deep. His eye kindles, and balancing himself with half-opened wings on the branch, he watches the result. The distant object of his attention descends like an arrow from heaven, disappearing in the deep, and making the surges foam around !

At this moment, the eager looks of the Eagle are all ardour. He sees the Fish Hawk once more emerge from the wave, struggling with his prey, and mounting into the air with screams of exultation. This is the signal for our hero, who instantly launches into the air, and gains rapidly on the Fish Hawk. Each bird now exerts himself to mount above the other, displaying in these efforts the most elegant and graceful motions. The Eagle is just on the point of reaching his enemy, when with a sudden scream the latter drops his prize ; and the conqueror, descending like a whirlwind, snatches it in his

grasp before it reaches the water, and bears it away silently to the woods.

The Fish Hawks sometimes unite in a body and drive the Eagle from their neighborhood. When thus forced to hunt for himself, he retires inland, in search of young pigs, which he destroys in great numbers. In the lower parts of Virginia and North Carolina, where the inhabitants raise vast herds of these animals, he commits extensive depredations. He also destroys young lambs in the early part of spring, and will sometimes attack old sickly sheep, aiming furiously at their eyes.

THE MOCKING BIRD.



This celebrated bird is peculiar to America. A warm climate and low country seem most congenial to his nature, and he is therefore more frequently found in the southern, than in the northern states. He builds his nest in different places, according to the latitude in which he resides. A solitary thorn-bush, an almost impenetrable thicket, an orange tree, cedar or holly bush are favorite spots.

While the female is sitting, neither cat, dog, man, or any other animal can approach the nest without being attacked. At this time, too, the vengeance of the bird is particularly directed against its mortal enemy, the black snake. Whenever this reptile is discovered, the male darts upon it with the rapidity of an arrow, and seldom leaves it till it is dead. He then returns to his nest, and pours out a torrent of song, in token of victory.

The plumage of this bird has nothing gaudy or brilliant in it; but he is remarkable for his full, strong and musical voice. This is capable of every note, from the mellow tones of the wood thrush, to the savage screams of the bald eagle.

His song loses little of its power and energy by confinement. In his domesticated state, he is exceedingly amusing. He whistles for the dog; Cæsar starts up, wags his tail, and runs to meet his master. He squeaks out like a hurt chicken, and the hen hurries about with hanging wings and bristling feathers, clucking to protect her injured brood. The barking of the dog, the mewing of the cat, the creaking of the passing wheel-barrow fol-

low, with great truth and rapidity. He runs over the quiverings of the canary, and the clear whistlings of the Virginia nightingale or red-bird, with such superior execution and effect, as to shame these beautiful songsters into silence.

WIDOW FINCH.



These birds have much of the manners, as, with the exception of the peculiar structure of their tail, they have all the organization of the Linnet. In captivity they are lively and active, jumping from perch to perch, and al-

ternately raising and depressing their long tails with much vivacity. They are usually fed upon grain, with the occasional addition of green herbs, and are fond of bathing in the water which is placed in their cage. Twice a year, they are subject to change of plumage, which alters the appearance of the male so much, that it would be difficult to recognize him for the same bird.

The male of this species in his summer dress is throughout of a bright black, with the exception of the back of the neck, which is half surrounded by a broad lightish chesnut band ; the breast, which is reddish brown ; and the under parts which are nearly white. During the winter, when it is destitute of the long tail-feathers, its head is variegated with black and white ; its breast and back are of a dull orange, covered with dusky spots ; its quill feathers are dark brown ; and its under parts dirty white.

The Widow-birds are natives of Africa, and are found in various parts of its western coast, from Senegal to Angola.

THE MAGPIE.

This bird is about eighteen inches in length, and is exceedingly beautiful. Its black, its white, its green and purple, with the rich and gilded glosses on its tail, are as fine as any that adorn the feathered tribe. But with all this, it is vain, restless, loud, and quarrelsome, and misses an opportunity to do mischief.

The insolence of Magpies is extreme. It is

to seize and insult the largest animals, when they can do it with safety. They are often seen perched upon the



back of an ox or a sheep, picking up the insects to be found there ; chattering and tormenting the poor creature at the same time, and stretching out their necks for combat, if the beast turns its head backward to catch

them. They also seek out the nests of other birds, and if the parent escapes, the eggs supply its place.

This bird is a great eater, and no kind of food seems to come amiss to it. But it is also provident in its gluttony; and even in a tame state, it will hide such of its food as it does not require for present use, and after a time return to its secret hoard with renewed appetite and vociferation.

In all its habits it shows a degree of instinct unusual to other birds. This is displayed among other things in the manner of building its nest. For this purpose it always chooses some place difficult of access; in some thick hedge-row fenced with brambles, or on the top of some high tree. The body of the nest is composed of hawthorn branches, with the thorns sticking outward; it is lined with roots, wool and long grass, and nicely plastered with mud and clay. Above this body, a canopy is built of the sharpest thorns, woven together in such a manner as to deny all entrance except at the door, which is just large enough to admit the occupants. It is thus protected against the kite, the crow, and the sparrow-hawk.

In its domestic state, this bird preserves its natural character with strict propriety. It retains in the cage the same noisy and mischievous habits that marked it in the woods; and as it is more cunning, it is taught more easily than any other bird. It speaks sometimes quite distinctly, but its sounds are too sharp and thin to be an exact imitation of the human voice. The Magpie is

found in Europe, and is said also to exist in the plains near the Rocky Mountains.

THE WHIP-POOR-WILL.



This is a very singular and celebrated bird, known all over the United States for his favorite call in spring. His notes seem like the voice of an old friend, and are universally listened to with interest. At first they issue from some retired part of the woods, the glen or mountain. In a few evenings we hear them from the adjoining thicket, the garden fence, the road before the door, and even from the roof of the dwelling house, long after the family have retired to rest.

He is now a regular acquaintance. Every morning and evening you hear his shrill notes from the adjoining

woods, plainly articulating the words whip-poor-will, the first and last syllables uttered with great emphasis. When near, you often hear an introductory cluck between the notes. Towards midnight these birds generally become silent, except when the moon shines clearly. During the day, they sit in the most retired, solitary, and deeply shaded part of the woods, where they repose in silence. Their food appears to be large moths, grasshoppers, and such insects as frequent the bark of old rotten and decaying timber.

BALTIMORE ORIOLE.



From the singularity of his nest, his brilliant colour, and the situation in which he builds, this bird is generally known; he is called by a variety of names, such as Hang-nest, Hanging bird, Golden Robin and Firebird.

He is most commonly called the Baltimore bird, and derives this name from the fact that his colours, which are black and orange, are those of the livery of Lord Baltimore, formerly proprietor of Maryland.

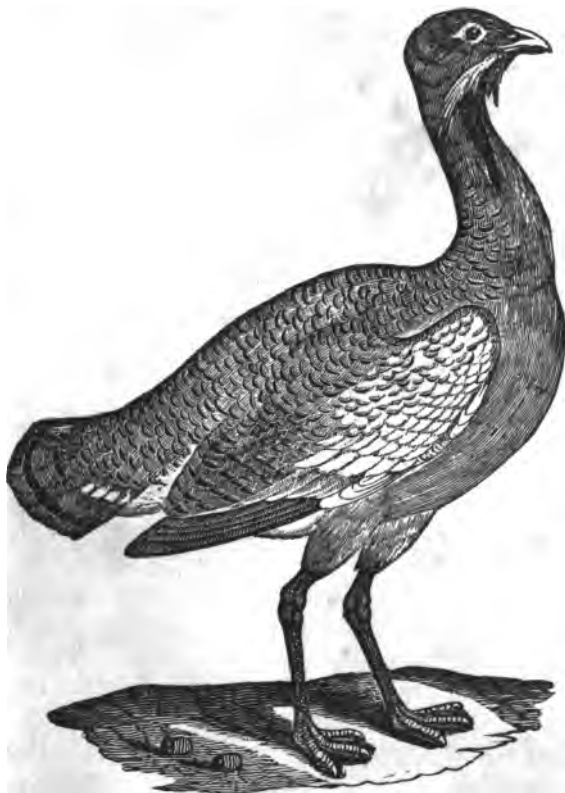
The nest of this bird is generally fixed on the high bending extremities of the branches, where he fastens strong strings of hemp or flax round two forked twigs. With the same materials, he makes a strong firm kind of cloth, not unlike the substance of a hat in its raw state, and forms it into a pouch six or eight inches in depth. This he lines substantially with soft substances well interwoven with the outward netting, and lastly finishes with a layer of horse hair. The whole is shaded from the sun and rain by a natural canopy of leaves.

The principal food of the Baltimore consists of beetles, caterpillars and bugs, particularly one of a glossy green. His song is a clear mellow whistle, repeated at short intervals as he gleams among the branches. When alarmed by an approach to his nest, he makes a kind of rapid chirrupping very different from his usual note. He inhabits North America from Canada to Mexico, and is found as far south as Brazil.

THE GREAT BUSTARD.

This is the largest land bird that is a native of Europe. It sometimes weighs twenty-seven and even thirty pounds. The neck is a foot long, and the legs are a foot and a half. The head and neck of the male are ash-coloured; the back is barred with black and bright rust

colour. The wings are generally about four feet from the



tip of one to the other, and though disproportioned to the size of the body, enable the bird to fly, with some diff

These birds are so cautious that they are seldom shot by the gun, though they are sometimes run down by greyhounds. As they are voracious and greedy, they often sacrifice their safety to their appetite, and feed themselves so very fat that they are unable to fly without great preparation. When the greyhound, therefore, comes within a certain distance the Bustard runs off flapping his wings, and endeavouring to gather air enough under them to rise. In the mean time the enemy approaches so near, that it is too late for the bird to think of obtaining safety by flight ; for just at the rise there is always time lost, and of this the bird is sensible. It continues on foot, therefore, till it is taken.

As there are few places where they can find proper food and security, the Bustards seldom wander above twenty or thirty miles from home. As their food consists of heath berries and earth worms, and green vegetables, it is consequently full of moisture ; they can live upon dry plains, where there are few springs of water, a long time without drinking.

Besides this, nature has given the males a pouch, the entrance to which is just below the tongue, that is capable of holding near seven quarts of water. This is probably filled upon proper occasions, to supply the hen when sitting, or the young before they fly.

They form no nest, but only scrape a hole in the earth, and sometimes line it with a little long grass or straw. There they lay two eggs only, almost of the size of a goose egg, of a pale olive brown, marked with spots of a

darker colour. They hatch for about thirty days, and the young ones run about as soon as they are out of the shell. The Bustard is not known in America.

THE TOUCAN.



This bird is one of the most extraordinary in the world. It is remarkable for a monstrous bill, which is from six to seven inches in length, and in some places two in breadth, the whole being extremely slight, and a little thicker than parchment. The plumage of this bird is dark, spotted with blue, purple, yellow and other colours that produce a very beautiful effect. The legs, feet, and claws are of an ash colour; and the toes stand like those of parrots, two before, and two behind. The tongue is

feathered at the edges, and, as well as the inside of the mouth, is of a deep red.

The Toucan is easily tamed, and will become very familiar, eating almost any thing offered to it. In general, it feeds upon fruits. In its wild state it is a noisy bird, perpetually moving from place to place in search of food. It is particularly fond of grapes. If these are plucked from the stalk, one by one, and thrown to it, the Toucan will catch them with great dexterity before they fall to the ground.

When in flocks, these birds generally appoint one of their number to watch through the night. While they are asleep, he sits perched at the top of a tree above them, making a continual noise, resembling ill-articulated sounds, and moving his head during the whole time to the right and left. From this circumstance, the South Americans have given this bird the name of the Preacher.

THE HUMMING BIRD.



This little bird is remarkable for its beauty, minuteness, want of song, and manner of feeding. There are upwards of seventy species in America, and the adjacent islands, only one of which is found in the United States.

This is found in Canada in great numbers, where it arrives from the south. It is wonderful how such a little creature can make its way over such extensive regions of lakes and forests. But it is protected by its very minuteness, the rapidity of its flight, and its admirable instinct and courage.

The nest of this little bird is fixed on the upper side of the branch of a tree. It has sometimes been known to build on an old moss-grown trunk, or on a strong weed in the garden. This nest is about an inch in diameter, and an inch deep, formed of lichen, wings of certain flying seeds, and the downy substance from the great mullein. The eggs are two, of a pure white. If any one approaches the nest, the little proprietors dart around with a humming sound, frequently passing within a few inches of his head. Their only note is a single chirp, not louder than that of a cricket or grasshopper.

The Humming-Bird is universally beloved. His flight from flower to flower very much resembles that of a bee, but is much more rapid. He sometimes enters a room by the window, examines the bouquets of flowers, and passes out by the opposite door or window. Besides the honey which he extracts from flowers, the little creature feeds sometimes upon insects.

This bird is three inches and a half in length, and of a rich golden green colour. The feathers round his throat are black, crimson and orange mingled together, giving him a very brilliant appearance.

THE FLAMINGO.



This is one of the tallest and most beautiful of water fowl. The body is of a rich scarlet, and is no bigger than that of the Swan ; but its legs and neck are of such extraordinary length, that when standing erect it is six

feet six inches high. The head is round and small, with a crooked bill seven inches long.

This bird is now chiefly found in America, but was once known on all the coasts of Europe. It is still occasionally met with on the shores of the Mediterranean. Its beauty, its size and the peculiar delicacy of its flesh have been such temptations to destroy or take it, that it has long since deserted the shores frequented by man, and taken refuge in countries, that are as yet but thinly peopled.

The Flamingo is one of the scarcest and shyest birds in the world. It chiefly keeps near the most deserted and inhospitable shores; near salt water lakes and swampy island. When seen by mariners in the day, they always appear drawn up in a long close line of two or three hundred together. They always appoint one of their number as a watch, to observe and give notice of danger while the rest are feeding. As soon as this trusty sentinal perceives any appearance of danger, he gives a loud shrill scream, and the whole band are instantly upon the wing. The flesh of this bird is black and hard, though well tasted; the tongue has been considered a very great luxury.

The nest of the Flamingo is extremely curious. It is built in a marsh, raised from the surface of the water about a foot and a half, formed of mud scraped into a heap and hardened by the sun. On the top it is hollowed out to the shape of the bird, and the female lays her eggs, in this cavity, which has no lining but the mud

which forms the sides of the building. She always lays two eggs and no more, and she straddles on the nest while her long legs hang down, one on each side into the water. It is some time before the young ones can fly, but they run with surprising swiftness. They are occasionally caught, however, and are very easily tamed.

THE SWAN.



When seen smoothly gliding along the water, displaying a thousand graceful attitudes, no bird can exceed the swan in beauty and majesty of appearance. Its form is light and easy, and its motions are natural and pleasing. But on the wing its motions are awkward, its neck is stretched forward with an air of stupidity, and it appears indeed only like a large sort of goose.

This bird has long been rendered domestic, and it is a doubt whether there be any of the tame kind now in a state of nature. The colour of the tame swan is entirely white, and its weight is generally full twenty pounds. Under the feathers is a very thick soft down, which is

made an articles of commerce, for purpose both of use and ornament.

The chief food of this bird is corn, bread, herbs growing in the water, and roots and seeds which are found near the margin. Its nest is composed of water plants, long grass and sticks. The Swan lays seven or eight white eggs, one every other day, much larger than those of a goose, with a hard shell. For some months after leaving the shell, the young are ash-coloured. It is rather dangerous to approach the old ones when their little family are feeding around them. A female has been known to attack and drown a fox which was swimming towards her nest ; and an old Swan can break the leg of a man with a single stroke of its wing.

Swans were formerly held in very great esteem in England. At present they are not valued for the delicacy of their flesh, but numbers are still preserved for their beauty. Many may be seen on the river Thames, where they are considered the property of the king, and it is accounted felony to steal their eggs. The Swan is a long lived bird and sometimes attains the age of more than a hundred years.

The *Wild* or *Whistling Swan*, though so strongly resembling this in colour and form, is yet a very different bird. It is much smaller and is of a very different form within. The colour of the tame Swan is entirely white ; the wild bird has the back and wing-tips of ash colour. The tame Swan is mute, the wild one has a sharp loud cry. The wild species is found in most northern regions.



The Wild, or Whistling Swan.



The Black Swan of New Holland.

The *Black Swan* is a native of New Holland, and is a bird which the ancients imagined could not possibly have an existence. It resembles the Swan of the old world in form, but is somewhat smaller. Every part of its plumage is perfectly black.

FISHES.

THE GREAT GREENLAND WHALE.



This is a large, heavy fish, usually found from sixty to seventy feet in length. The fins on each side are from five to eight feet, composed of bones and muscles, and sufficiently strong to give speed and activity to the great mass of body which they move. The tail is about twenty-four feet broad, and is exceedingly flexible ; its blow is tremendous.

The skin of the whale is smooth and black, and in some places marbled with white and yellow. The cleft of the mouth is above twenty feet long ; and the upper jaw is furnished with barbs, that lie, like the pipes of an organ, the greatest in the middle and the smallest on the

sides. These compose the substance called whale-bone, and are very different from the real bones of the animal which are hard, very porous, and filled with marrow. The tongue is fixed to the lower jaw, and seems one great lump of fat. The eyes are no larger than those of an ox, and are placed towards the back of the head.

The fidelity of these animals to each other almost exceeds belief. A story is told of some fishes who struck one of two whales, a male and a female, that were in company. The wounded fish made a long and terrible resistance : and with a single blow of the tail swept a boat with three men in it to the bottom. The other still attended its companion, and lent it every assistance. At length, the fish that was struck sunk under its wounds ; and its faithful associate, with great bellowing, refusing to desert its body, shared its fate.

The manner of taking whales at present is as follows : Every ship is provided with six boats, to each of which belong six men for rowing the boat, and a harpooner whose business it is to strike the whale. Two of these boats are kept constantly on the watch at some distance from the ship, fastened to pieces of ice. As soon as a whale is perceived, both the boats set out in pursuit of it, and if either of them can come up before the whale finally descends, the harpooner discharges his harpoon at him.

As soon as the whale is struck, the men set up one of their oars on the middle of the boat as a signal to those in the ship. On perceiving this, the watchman alarms all the rest with the cry of *fall ! fall !* upon which all

the other boats are immediately sent out to the assistance of the first.

HARPOONING A WHALE.



The whale, finding himself wounded, runs off with prodigious violence. The rope which is fastened to the harpoon is about two hundred fathoms long, and so coiled up that it may be given out freely. At first, the velocity with which this line runs over the side of the boat is so great, that it is wetted to prevent its taking fire. In a short time, however, the strength of the whale begins to fail, and the fishermen, instead of letting out more rope, strive to pull back what is given out already. If he runs out the two hundred fathoms of line contained

in the boat, that belonging to another is immediately fastened to the end of the first, and so on.

The whale cannot stay long below water, but again comes up to blow ; and being now much fatigued and wounded, stays longer above water than usual. This gives another boat time to come up with him, and he is again struck with a harpoon. He again descends, but with less force than before ; and when he comes up again, ~~suffers~~ ~~himself~~ to be wounded and killed with long lances provided for the purpose. He is known to be near death, when he spouts up the water deeply tinged with blood.

The whale being dead, they cut off his tail and fins, and lash it along side the ship. They then lay it on one side, and put two ropes, one at the head and the other in place of the tail, which keep these extremities above water. Three or four men then get on the whale, and begin to cut out pieces of about three feet thick and eight long, which are hauled up into the ship. Part of the crew are employed in slicing up the large pieces, and picking out all the lean. When this is prepared, they stow it under the deck, where it lies till the fat of all the whale is on board. It is then cut up still smaller, and put up in casks in the hold.

The flesh of this animal is a dainty to some nations, and the savages of Greenland, as well as those near the south pole, are extravagantly fond of it. The oil is considered by them a first rate delicacy. The finding a dead whale is an adventure among the fortunate circumstan-

cess of their lives. They make their abode beside it; and seldom remove till they have left nothing but the bones.

THE PEARL OYSTER.



All oysters, and most shell fish, are found to contain pearls. That which particularly obtains the name of the pearl oyster, has a large strong whitish shell, wrinkled and rough without, and within smooth, and of a silver colour. From these the mother-of-pearl is taken, which is nothing more than the inner coat of the shell, resembling the pearl in colour and consistence. There are a great number of pearl fisheries in America and Asia. The chief of these is carried on in the Persian Gulf and at Ceylon.

The fishers for pearls are either negroes, or some of the poorest of the natives of Persia. They are not only subject to the dangers of the deep, to tempests, suffo-

cation or being devoured by sharks, but their occupation affects their lungs and causes them to labour under a spitting of blood. The most robust and healthy young men are chosen for this employment, but they seldom survive it above five or six years. Their fibres become rigid; their eye-balls turn red; and they usually die of consumption.

They fish for the oysters which contain pearls, in boats twenty-eight feet long. Of these there are sometimes three or four hundred at a time; each with seven or eight stones which serve for anchors. The number of divers in every boat is from five to eight. They are quite naked, except that they have gloves to protect their hands while picking the oysters from the rocks, and a net hanging down from the neck to hold them when taken. It is said that some have been known to remain three quarters of an hour under water.

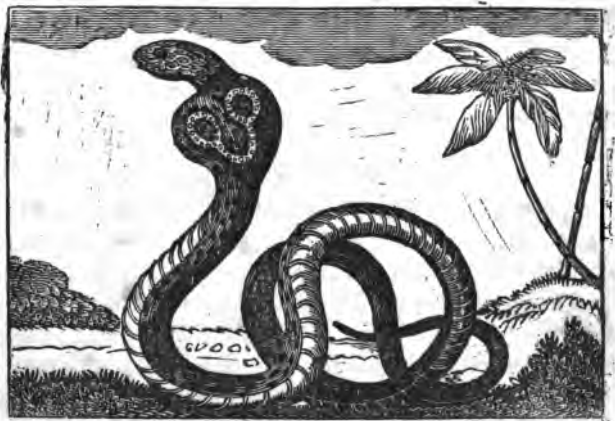
Every diver is sunk by means of a stone, weighing fifty pounds, tied to the rope by which he descends. He places his foot in a kind of stirrup, and laying hold of the rope with his left hand, with his right he stops his nose to keep in his breath. On reaching the bottom, he gives a signal to those in the boat to draw up the stone, and then goes to work to fill his net as fast as he can. At another signal, the boats above pull up the net loaded with oysters, and shortly after the diver himself.

They dive to the depth of fifteen fathoms and seldom go deeper. They generally take the land-wind at morning to waft them out to sea, and return with the sea-

breeze at night. The owners of the boats usually hire the divers as we do our labourers, at so much a day. All the oysters are brought on shore, where they are laid in a great heap till the pearl-fishery is over. This continues during the months of November and December.

SERPENTS AND REPTILES.

THE HOODED SNAKE.



The Hooded Snake of India is a large and beautiful serpent, but exceedingly venomous, its bite generally proving mortal in less than an hour. It derives its name from having a curious hood near the head, which it contracts or enlarges at pleasure. The centre of this hood

is marked in black and white like a pair of spectacles, from whence it is also named the spectacle snake.

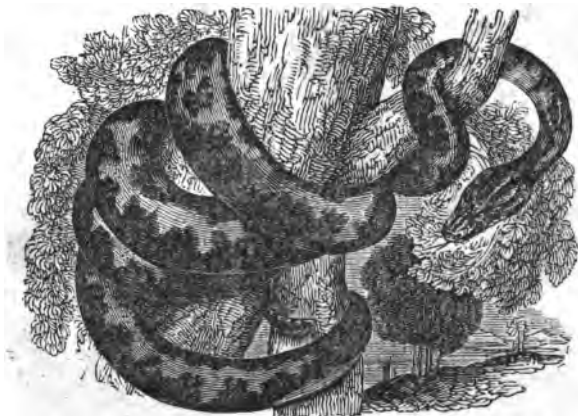
Of this genus are the dancing snakes. These are carried in baskets throughout Hindostan, and procure maintenance for a set of people who manage them by playing a few simple notes on the flute. With this music the snakes seem much delighted, and keep time by a graceful motion of the head, erecting about half their length from the ground. When a house is infested with these snakes, and some others of a larger kind, which destroy poultry and the small domestic animals, the musicians are sent for. It is a well known fact that no sooner do the snakes hear the notes of the flageolet, than they come softly from their retreat, and are easily taken.

BOA CONSTRICTOR.

One of these animals was brought to England in the *Cæsar*. He was a native of Borneo, and was put on board the ship in a wooden cage with a sliding door. Six goats were sent with him; one a month being considered a fair allowance. When he was fed, the sliding door being opened, one of the goats was thrust in and the door shut.

The poor victim, aware of the horrors of its situation, uttered the most piercing cries, butting at the same time towards the serpent as if in self defence. The snake at first scarcely condescended to notice the animal. At length he fixed his eye steadily on the goat, and raising his head a little, darted out his forked tongue. He then

suddenly seized the poor creature by the fore-leg with his fangs, and throwing it down encircled it in his knotted folds.



The half-stifled cries of the goat soon ceased in death. The snake, however, held him a considerable time. He then slowly unfolded himself, and prepared to swallow the dead animal, by placing his mouth in front of its head, and sucking it in as far as the horns would allow. The points of the horns opposed a slight obstruction but they soon disappeared. The whole operation of completely gorging the animal occupied about two hours and twenty minutes. The reptile now coiled himself up again, and laid quietly in his usual torpid state for about three weeks or a month. By this time his meal was

completely digested, and he was presented with another goat which he devoured with equal facility.

THE RATTLE SNAKE.



These deadly creatures are bred in North and South America, and in no part of the old world: Some are as thick as a man's arm, and six feet long. The usual length however is from four to five feet. They are of an orange, tawny and blackish colour on the back, and of an ash colour on the belly. The male may be readily distinguished from the female by having a smaller and longer head, marked by a black velvet spot. But that which distinguishes them from all other animals is their rattle; an instrument lodged in the tail, by which they

make such a loud rattling noise, when they move, that their approach may readily be perceived and avoided.

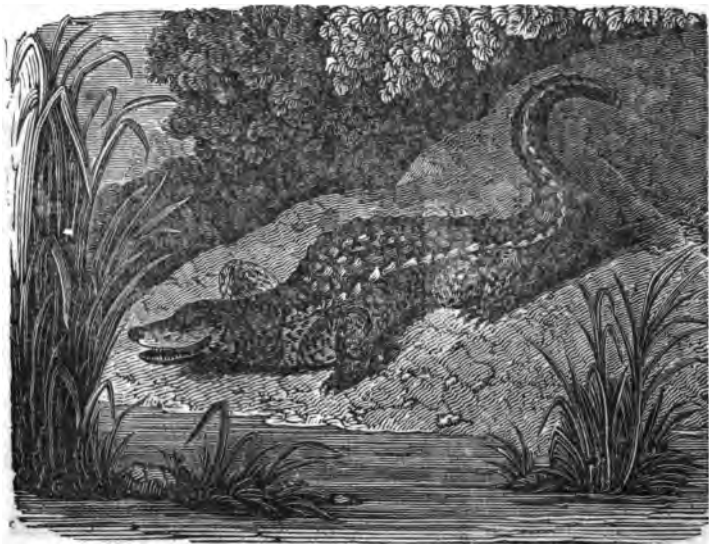
This rattle is composed of several thin, hard, hollow bones, linked on each other and sounding upon the slightest motion. The young snakes of a year or two old have no rattles at all ; and it is supposed by some, that they acquire one new bone every year afterwards. When disturbed, they shake these rattles with prodigious quickness ; a sound of terror to almost every animal but the peccary and the vulture, who hasten at the signal to feast upon their favourite food.

When unprovoked, the Rattle snake never meddles with any thing but its natural prey. But when accidentally trodden upon, or pursued to be destroyed, it makes a dreadful and desperate defence. It erects itself upon its tail, throws back its head, and inflicts the wound in a moment ; then parts and inflicts a second wound. After this, we are told by some, that it remains torpid and inactive without even attempting to escape. The pain of the wound is immediate, and soon becomes insupportable ; some expire under it in five or six hours.

The usual motion of the Rattle Snake is with its head to the ground. When, however, it is alarmed, it coils its body into a circle, with its head erect, and its eyes flaming in a terrific manner. But it cannot pursue rapidly, and has no power of springing on its enemy. Some naturalists have believed it to have the power of fascinating its prey by gazing at it, so as to render it incapable of flight. It is more probable that the victim is prevented

from escaping by the extreme terror which its formidable enemy inspires.

THE ALLIGATOR.



This animal is a native of the warmer parts of America, in some of which it is astonishingly numerous. Its usual length is seventeen or eighteen feet. Its voice is loud and dreadful, and its musky scent is sometimes so powerful as to be very offensive. Its usual motion, when on land, is slow and sluggish ; a kind of laboured crawl-

ing. When after prey in the water or at its edge, the Alligator swims so slowly towards it as not to ruffle the surface. It approaches the object sideways, body and head all concealed, till sure of its stroke. Then with a tremendous blow of his tail, as quick as thought, the object is secured.

The chief means of attack or defence of the Alligator is his large tail ; which is so contrived, that when curv-
ed into half a circle, it reaches his enormous mouth. As he strikes with this, the monster forces all objects within the circle towards his jaws. These are now opened to their full stretch, thrown a little sideways to receive the object, and, like battering-rams, to bruise it shockingly in a moment.

“As the lakes become dry,” says Mr. Audubon, “and even the deeper connecting bayous empty themselves into the rivers, the Alligators congregate into the deepest hole in vast numbers. To this day, in such places, they are shot for the sake of their oil, now used for greasing the machinery of steam-engines and cotton mills ; though formerly, when indigo was made in Louisiana, the oil was used to assuage the overflowing of the boiling juice. The Alligators are caught frequently in nets by fishermen ; they then come without struggling to the shore, and are killed by blows on the head given with axes.

“When Autumn has heightened the colouring of the foliage of our woods, the Alligators leave the lakes to seek for winter quarters, by burrowing under the roots

of trees, or covering themselves simply with earth along their edges. They become then very languid and inactive, and at this period to sit or ride on one, would not be more difficult than for a child to mount his wooden rocking horse.

“The negroes, who now kill them, put all danger aside, by separating, at one blow with an axe, the tail from the body.” They are afterwards cut up in large pieces, and boiled whole in a good quantity of water, from the surface of which the fat is collected with large ladles. One single man kills oftentimes a dozen or more of large Alligators in the evening, prepares his fire in the woods, where he has erected a camp for the purpose, and by morning has the oil extracted.

“I have frequently been very much amused when fishing in a bayou, where Alligators were numerous, by throwing a blown bladder on the water towards the nearest to me. The Alligator makes for it, flaps it towards its mouth, or attempts seizing it at once, but all in vain. The light bladder slides off; in a few minutes, many alligators are trying to seize this, and their evolutions are quite interesting. They then put one in mind of a crowd of boys running after a foot ball. A black ball is sometimes thrown also, tightly corked; but the Alligator seizes this easily, and you hear the glass give way under its teeth as if ground in a coarse mill. They are easily caught by negroes, who most expertly throw a rope over their heads when swimming close to shore, and haul them out instantly.”

The nest of the Alligator is built in a place forty or fifty yards from the water in thick bramble or cane. She gathers leaves, sticks and rubbish of all kinds to form a bed to deposit her eggs ; she carries her materials in her mouth, as a hog does straw. As soon as a proper nest is finished, she lays about ten eggs, then covers them with more rubbish and mud, and goes on depositing in different layers, until fifty or sixty eggs are laid. The whole is then covered up, matted and tangled with long grass in such a manner that it is very difficult to break it up.

These eggs are the size of those of a goose, and instead of being contained in a shell, are in a bladder, or their transparent parchment like substance, yielding to the pressure of the fingers, yet immediately resuming its shape. They are not eaten even by hogs. The female now keeps watch near the spot, and is very weary and ferocious, going to the water from time to time only for food. Her nest is easily discovered, as she always goes and returns the same way, and forms quite a path by the dragging of her heavy body.

Capt Waterton, in his amusing book of Wanderings in South America, describes a most extraordinary adventure with an Alligator. It was first caught with a long iron hook, attached to a rope ; the Indians then drew him to the shore, and Waterton himself sprang upon his back, seized his legs, and twisting them over his shoulders, rode him safely up the bank, amid the shouts and exclamations of the savages.

INSECTS.

THE GREAT LANTERN FLY.



This very curious insect measures about three inches and a half, from the tip of the front to that of the tail ; and about five inches and a half from wing's end to wing's end, when expanded. The body is of a lengthened oval shape, roundish, and divided into several rings. The wings are very large, of a yellow colour, elegantly varied with brown. The lower pair are decorated by a very large eye shaped spot on the middle of each, the border of the spot being red, and the centre half red and half white. The head or lantern is a pale yellow with red stripes.

This beautiful insect is a native of Surinam, and dur-

ing the night sheds so strong a phosphoric splendour from its head or lantern, that it may be employed for a candle or torch. It is said that three or four of them tied to the top of a stick are frequently used by travellers for that purpose. A single one gives light enough to enable a person to read.

THE GIGANTIC COCKROACH.



This insect is the largest of its species, and is almost the size of a hen's egg. It infests the warm parts of Asia, Africa, and South America. It is filthy and voracious, and flies out in the evening, plundering and defiling all kinds of victuals, and damaging all sorts of clothing, every thing made of leather, books, paper and various other articles.

In old houses these creatures swarm by myriads, making every part where they harbor very dirty and disgusting. In old timber and deal houses, when the family retire to sleep, they are serenaded all night by a noise made by this insect, resembling a smart knocking with

the knuckles upon wainscoting. In the West Indies it is therefore frequently known by the name of the Drummer.

THE DIAMOND BEETLE.



This beetle is the most splendidly coloured of all the insect family. The ground colour of the wings is a coal black, with numerous lines of sparkling indentations of a green gold colour and highly brilliant. It inhabits South America, being most frequently found in Brazil. There is another rich and elegant species of this insect in India. Here, however, it is so very rare that the wing cases are set like a gem on rings, and worn by the great. The body is of a silky green, with broad golden bands.

THE WALKING LEAF.

This most remarkable insect is found in China. Its head is placed on a neck longer than the body itself, and is shaped like an awl, with two polished eyes, and two feelers. The wings are transparent.

This insect is generally of a beautiful green colour,



which soon fades, when it resembles a dead leaf. From this circumstance it has been called the walking leaf.

THE BEE.



The bee is divided in its form into three parts ; the head, the breast and the belly. The head is armed with two jaws and a trunk ; the former of which play like two saws, opening and shutting to the right and left. The trunk is long and taper, and very pliant and flexible, being intended by nature to penetrate to the bottom of flowers, and drain them of their sweets. From the middle part or breast of the bee grow six legs. The wings are four. Three kinds of bees are found in every hive ; the Queen Bee, Drone Bee, and Working Bee.

The Queen Bee is easily distinguished from all the other Bees in the hive, by the form, size and colour of her body. She is considerably longer, and her wings are much shorter in proportion to her body, than those of the other Bees. Her deportment is very calm and solemn. The Working Bees do all the business of the hive, and seem to be neither male nor female. The Drones are the males, which are somewhat larger, have no sting, never stir from the hive, and live upon the honey prepared by the others.

The bees pay great respect and homage to the person of their queen. When she is removed from the hive, they do not immediately perceive it, but continue their labours as usual. In a few hours, great agitation and confusion ensue; a singular humming is heard; the bees desert their young, and rush over the surface of the combs with great impetuosity. They have now evidently discovered that their sovereign is gone, and the news spreads with remarkable rapidity to every corner of the hive. On replacing the queen in the hive, tranquillity is instantly restored.

When the Bees begin to work in their hives, they divide themselves into four companies. One band roves the field in search of materials. Another is employed in laying out the bottom and partition of their cells; a third in making the inside smooth from corners and angles. The fourth company brings food for the rest, or relieves those who return with their respective burdens. Their diligence and labour are so great, that in a day's time

they are able to make cells, which lie upon each other, numerous enough to contain three thousand bees.

In some parts of France and Piedmont, they have contrived a kind of floating bee house. They have on board a single barge from sixty to an hundred bee-hives, well defended from the severity of an accidental storm ; and with these the owners float gently down the river. As the bees are continually choosing their flowery pasture along the banks of the stream, they are furnished with sweets fresh and untouched. In this manner a single bee house is made to yield the owner a considerable income.

The bees are nearly alike in all parts of the world, yet there are differences worthy of notice. In Guadaloupe, the bees are smaller by one half than the European, and more black and round. They have no sting, and make their cells in hollow trees. Here, if the hole they meet with is too large, they form a sort of waxen house, of the shape of a pear, and in this they lodge and store their honey, and lay their eggs. They lay up their honey in waxen vessels of the size of a pigeon's egg, of a black or deep violet colour ; and these are so joined together that there is no space left between them.

Mr. Wildman, some years ago, surprised the whole kingdom of Great Britain by his dexterity in the management of bees. He possessed a secret by which he could cause a hive of them to swarm upon his head or shoulders ; and he has been seen to drink a glass of wine, with the bees all over his head and face, more than an inch deep.

It is also said, that he divided them into companies, regiments, and battallion, according to military discipline ; and on his uttering the word *March!* they began to move very regularly, in the manner of soldiers. He even taught his Bees so much politeness that they never attempted to sting any of the numerous visitants who frequently assembled to admire so interesting a spectacle.

TREES AND SHRUBS.

THE COCOA NUT TREE.



The Cocoa nut tree is one of the most valuable gifts that Providence has bestowed upon the oriental regions

of the globe. It is a kind of palm, and grows to the height of fifty or sixty feet. Its summit is crowned with green branches and leaves, appearing like immense feathers; each being about fifteen feet long and three feet broad. The trunk is straight, naked, and marked with the scars of falling leaves. The nuts hang under the foliage at the top, in clusters of a dozen together.

The larger leaves are used for the thatching of buildings, and are wrought into baskets, brooms, coarse mats for the floor, and common umbrellas. The trunks are made into boats, and furnish timber for the construction of houses. The nuts contain a delicious milk, and a kernel as sweet as the almond. This, when dried, affords an abundance of oil, which in some countries is the only oil used at table.

The shell of the nut furnishes cups, ladles, and other domestic utensils, while the husk is manufactured into ropes and cordage of every description, from the smallest twine to the largest cable. In the Nicobar islands, the natives build their vessels, make the sails and cordage, supply them with provisions and necessaries, and provide a cargo of arrack, vinegar, oil, coarse sugar, cocoa nuts, cordage, black paint, and several inferior articles for foreign markets, entirely from this tree.

Many of the trees are not permitted to bear fruit: but the bud, from which the blossoms and nuts would spring, is tied up to prevent its expansion. A small hole being then cut at the end, a cool pleasant liquor oozes out in gentle drops. This is called tarce or toddy, and is the

palm wine of the poets. When first drawn, this liquor is refreshing and healthful ; but when distilled and fermented, it becomes intoxicating.

This tree is a native of Africa, the East and West Indies, and South America. It flourishes best in a flat sandy soil, near the sea, and must be frequently watered. It generally lives for eighty or an hundred years.

BANIAN TREE.



This tree deserves notice, not as a fruit tree, but from its being a sacred tree with the Hindoos in the East Indies, from the vast size it attains, and the singularity of its growth. The fruit does not exceed that of a hazel in bigness, but the branches send down shoots which

take root, and increase to large trunks, till in course of time a single tree extends itself to a considerable grove.

A banian tree, with many trunks, forms the most beautiful walks, vistas, and cool recesses that can be imagined. The leaves are large, soft, and of a lively green. The fruit is a small fig, when ripe of a bright scarlet, affording sustenance to monkeys, squirrels, peacocks, and birds of various kinds, which dwell among the branches.

The Hindoos are particularly fond of this tree. They consider its long duration, its out-stretching arms, and overshadowing beneficence, as emblems of the Deity, and almost pay it divine honours. Their Brahmins, or priests, spend much of their time in religious solitude under the shade of the banian tree. They plant it near their temples, and in those villages where there is no structure for public worship, they place an image under one of these trees, and there perform a morning and evening sacrifice.

On the banks of Nabadda, there is a banian tree of immense extent. High floods have at various times swept away a considerable part of it; but what still remains is nearly two thousand feet in circumference, measured round the principal stems. The overhanging branches, not yet struck down, cover a much larger space. The large trunks of this single tree are three hundred and fifty in number, and the smaller ones exceed two thousand. Each of these is constantly sending forth new branches and hanging roots.

THE BOX-EVERGREEN SHRUB.

This is a northern plant, and preserves its verdure during the most severe winters. It is not now the fashion, but was formerly a favourite ornament of the European gardens. The ancients held the box tree in great estimation, as it is capable of being cut into a variety of forms.

In the entertaining letters of Pliny the Younger, it is stated that at his country seat there were box-trees cut into the forms of men on horseback, a huntsman preceded by his hounds, various quadrupeds, elegant vessels, and many figures of different descriptions.

In the same garden, there was a box tree of vast dimensions, cut into different apartments; with a green saloon in the centre, enlivened by the warbling of birds. A water-fall was also introduced in it, rushing into a small basin, bordered with moss. This beautiful spot was surrounded with a bench of white marble.

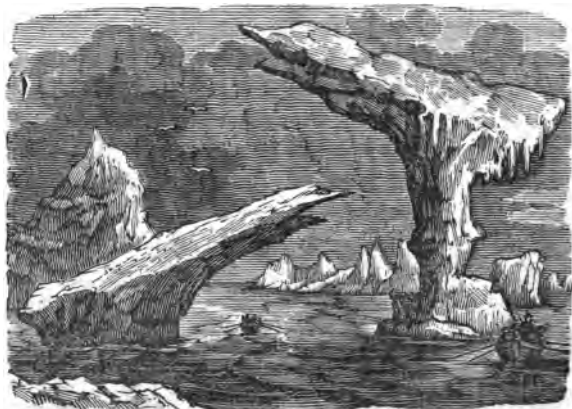
ICE.

ICEBERGS.

Icebergs are large bodies of ice filling the valleys between the high mountains in northern latitudes. Among the most remarkable are those of the East Coast of Spitsbergen. The frost sports wonderfully with these bodies, and gives them the most fantastic, and sometimes the most majestic forms.

Masses have been seen assuming the shape of a Gothic

Church, with arched windows and doors, and all the rich drapery that an Arabian tale would scarcely dare to de-



scribe. Crystal of the richest blue tables with one or more feet, and often immense flat-roofed temples, supported by round transparent columns, float by the astonished spectators. These icebergs are the creation of ages, and annually increase by the falling of snows, and of rain, which instantly freezes, and more than repairs the loss occasioned by the heat of the sun.

A PALACE BUILT OF ICE.

In the year 1740, the Empress Anne of Russia, caused a palace of ice to be erected upon the banks of the Neva. This extraordinary edifice was fifty-two feet in length, sixteen in breadth, and twenty feet high, and constructed

of large pieces of ice cut into suitable snapes. The walls were three feet thick. The several apartments were furnished with tables, chairs, beds, and all kinds of household furniture of ice.

In front of the edifice, besides pyramids and statues, stood six cannon, carrying balls of six pounds' weight, and two mortars, entirely made of ice. At a trial from one of the former, an iron ball, with only a quater of a pound of powder was fired off, and went through a two inch board, at sixty paces distance. The illumination in this palace, at night, was wonderfully grand.

CHURCHES AND OTHER PUBLIC EDIFICES.

ST. PETER'S AT ROME.

The cathedral church of St. Peter's, at Rome, is considered the master-piece of modern architecture. The space in front of the edifice is surrounded by a beautiful colonnade, composed of four rows of columns, forty feet high, and two hundred and fifty-six in number. They are surmounted with one hundred and ninety-two statues of saints, each eleven feet in height. In the centre an Egyptian obelisk, nearly eighty-four feet in height, rises between two magnificent fountains of ever flowing water.

The front of St. Peter's is one hundred and sixty feet in height, and three hundred and ninety-six in width. The length of the church, within the walls, is about six hundred and seven English feet; and the height from the pavement to the summit of the cross, is four hundred

and forty-eight feet. This enormous pile nowhere displays its dimensions so strikingly as on the roof, and the dome appears in itself one immense temple, encircled with magnificent columns.



Over the portico, which is supported by pillars eighteen feet in circumference, are the statues of our Saviour and the twelve apostles ; and there is also a fine balcony, where the popes are crowned, in view of the assembled multitude. The body of the church, as well as the cupola, is sustained by large square pillars ; and under the middle of the cupola stands the high altar. This is a kind of pavilion, ninety feet in height, and supported by four wreathed columns of brass, adorned with foliage.

On the top of the canopy are four angels of gilt brass, holding wreaths of flowers, most beautifully carved.

The interior of the church is adorned with various colossal paintings of angels, prophets and apostles ; grand columns of marble, porphyry, and granite, the gigantic supporters of the dome. In the niches there are numerous colossal statues of saints, at least thirteen feet high. The walls are inlaid with a variety of precious stones. Around the tomb of the patron saint, with its gilded and ornamented gate of bronze, an hundred brazen lamps are continually burning. The pavement is composed of the most rare and curious marbles of beautiful workmanship.

This magnificent edifice was going forward during three centuries and a half. It is calculated that the cost must have been between fifteen and twenty millions of pounds sterling.

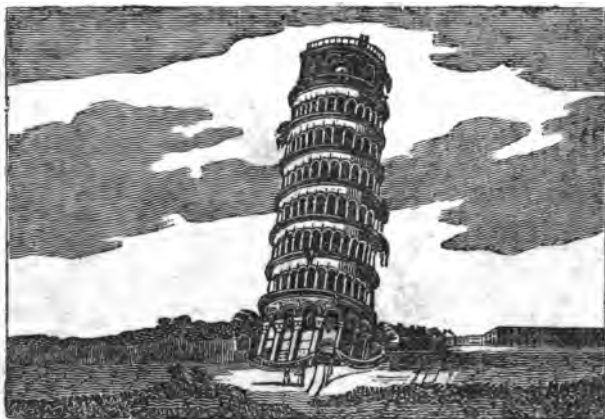
CATHEDRAL AT SEVILLE.

Some persons are of opinion that the cathedral at Seville, in which there is a mixture of the Gothic and Moorish style, has an appearance of majesty beyond any other in the kingdom. It is four hundred and seven feet in length, two hundred and seventy in breadth, one hundred and twenty-eight in height ; and its roof is supported by two double rows of beautiful columns.

The tower of this church is three hundred and fifty feet high, built of brick, with large windows to give light to the stair-case, the ascent of which is so easy that a person may ride up on horseback, or even in a chaise.

It is terminated by a cupola, on the top of which is the figure of a woman in brass, that turns like a weather-vane to tell the direction of the wind. The inside of the church is adorned with statues, paintings, monuments and other decorations ; and the magnificent tabernacle on the high altar is of massy silver, weighing above 600 pounds.

LEANING TOWER AT PISA



This celebrated leaning tower is of a round form, and one hundred and eighty feet high, built entirely of white marble. It was finished in 1174, and is ascended by two hundred and thirty steps ; has several galleries on the outside, and is open in the interior. It overhangs fifteen feet, and to a spectator looking down from the top, the

effect is terrific. The view from the top is extensive and beautiful, commanding to the westward the course of the Arno, winding through fertile plains to the sea; the spires of Florence towering in the line of coast across the marshes, and the distant hills of Monticchi behind. The view is a grand and happy one to have been brought home to the eye.

The church of St. Lorenzo, in the morning of this town, is a fine example of the art, in which water is used to the advantage of the eye. Another view of the town, taken from the tower of the original church, shows the town and the river in the foreground.

ST. LORENZO, IN NEW YORK.



ment and important
It is situated in the

Park, with a fine open space about it, and is seen to great advantage in every direction. It forms to the eye of the stranger one of the handsomest structures in the United States ; and, perhaps, of its size, in the world.

The building is of a square form, and is two stories in height, besides a basement story. It has a wing at each end, projecting from the front, and the roof is elevated in the centre. The whole length of the building is two hundred and sixteen feet, and the height fifty-one feet. The front and both ends, above the basement story, are built of native white marble, from Stockbridge, Massachusetts ; and the rest of the building is constructed of brown free stone.

The roof is covered with copper, and there is a balustrade of marble entirely round the top. Rising from the middle of the roof is a cupola, on which is placed a colossal figure of JUSTICE, holding in her right hand a balance, and in her left a sword pointing to the ground.

There are four entrances to the building, one in front, one in the rear, and one in each end. To the front entrance, there is access by a flight of twelve marble steps, rising from which are sixteen columns supporting a portico over the entrance, also composed of marble.

Three staircases lead from the first to the second story. The principal of these is in the centre, with marble steps ; and round the top of it is a circular gallery, railed in, and floored with marble. From this gallery ten marble columns ascend to the ceiling, which here opens and displays a handsome dome, beautifully ornamented, and

giving light from the top to the interior of the building.

The foundation stone of this noble building was laid on the 26th Sept. 1803, during the mayoralty of Edward Livingston, Esq., and at the time when the yellow fever prevailed in the city. It was finished in 1812, and cost half a million of dollars. This Hall is applied to the use of the Common Council, in their different meetings respecting the affairs of the city ; and to the sittings of the judges of the courts of law.

PORCELAIN TOWER AT NANKIN.



Without the gates of several great cities in China, there are lofty towers erected, which seem chiefly intended for ornament, and for taking a view of the sur-

rounding country. The most remarkable of these towers is that of Nankin, called the Porcelain Tower, from its being entirely covered with porcelain tiles, beautifully painted. It is of an eight-sided figure, contains nine stories, and is about two hundred feet high, being raised on a very solid base of brick work.

The wall at the bottom is at least twelve feet thick. The building gradually diminishes to the top, which is crowned by a sort of spire or pyramid, having a large golden ball or pine-apple on its summit. It is surrounded by a balustrade of marble, and has an ascent of twelve steps to the first floor, from whence there are very narrow and inconvenient stairs, leading to the ninth story.

Between every story there is a kind of shed on the outside of the tower, and at each corner are hung little bells which make a pleasant jingle in the wind. Each story is formed by large pieces of timber covered with boards. The ceilings of the rooms are adorned with paintings, and the light is admitted through windows made of grates or lattices of wire. There are likewise many niches in the walls, filled with Chinese idols; and the variety of ornaments that embellish the whole, render it one of the most beautiful structures in the empire. It has now stood above three hundred and fifty years, and has yet suffered but little from time.

MOSQUE OF ST. SOPHIA, CONSTANTINOPLE.

The Turks never aim at grandeur in their private houses, but their mosques or temples, and other public

buildings are extremely magnificent. The royal mosques in particular, are very beautiful and stately edifices, and are usually the first that engage the attention of a stranger after his arrival in Constantinople. All the mosques of the city stand alone, within spacious enclosures, planted with trees and adorned with fountains.



The principal of the royal mosques is that of St. Sophia, which is situated on an eminence in one of the best and finest parts of Constantinople. It was formerly a

Christian church, having been built in the sixth century by the Emperor Justin ; but the Turks have now converted it into a mosque for the worship of Mahomet. The length of the edifice is one hundred and fourteen paces, and the breadth eighty. It has in front a portico thirty six feet wide, supported by marble columns, and communicating with the church by nine stately folding doors, whose leaves are of brass.

The body of the mosque is covered by a dome of admirable structure, at the foot of which runs a colonnade, sustaining a gallery ten yards broad. Over this are too small galleries, supported by columns and arches of excellent workmanship, answering to those below. The dome is said to be one hundred and thirteen feet in diameter, and is built upon arches, supported by vast pillars of white marble. The form of the dome is that of a hemisphere, or half globe, and it is illuminated by twenty-four windows, placed round it at equal distances.

On the east side of this vast cupola is a half-dome, which was the sanctuary of the Christians. Here is now a niche, wherein the Turks keep their Koran ; the volume which contains the revelations and doctrines of their pretended prophet, Mahomet. At a little distance from the niche is the chair of the Mufti or high-priest. It is raised on several steps, and on the side of it is a kind of pulpit, where certain prayers are repeated by persons appointed for that purpose.

The Turks have been accused of pulling down some parts of this edifice since they took it from the Christians.

Instead of pulling down, however, they have added four of the tall slender steeples, called minarets. Every royal mosque has at least two minarets, and one of them has six; but the common mosques have seldom more than one. The mosque of St. Sophia has generally been represented as the noblest building in Constantinople.

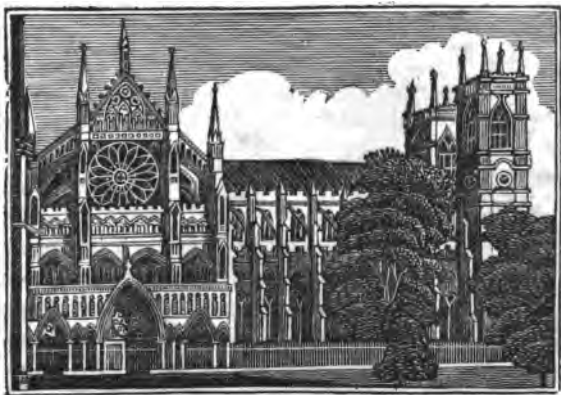
CATHEDRAL AT MILAN.



Next to St. Peter's, the cathedral of Milan is considered the most magnificent structure in Italy. It is a vast Gothic edifice, about five hundred feet in length, and two hundred in breadth, and is built entirely of marble. Its

roof is supported by one hundred and sixty pillars of white marble, each of them valued at ten thousand crowns. The high altar is very rich and majestic. There are two noble pulpits of brass, each of them running round a large pillar like a balcony, and supported by huge figures of the same metal. The number of statues about this church is prodigious. Many of them are as large as life and of exquisite workmanship.

WESTMINSTER ABBEY.



This magnificent church was erected in the reign of Henry III. It is built in the form of a cross ; the length being four hundred and eighty-nine feet, and the breadth of the west end sixty-six feet. At this end are two noble towers, built by Sir Christopher Wren. The interior

of the church is admirably executed ; all the windows, arches, roofs and doors being in the ancient Gothic style. The altar is extremely beautiful.

In this venerable structure are twelve sepulchral chapels, containing several curious monuments of the sovereigns and nobility of Great Britain. The chapel of Henry VII is remarkable for its elegance. The ascent to its interior is from the east end of the abbey, by steps of black marble leading to brazen gates, curiously wrought in the manner of frame work. The roof is divided into sixteen circles, and supported by twelve stately pillars, enriched with figures, fruitage and other ornaments. This chapel is also adorned with the arms and banners of knights, and with many statues in its niches. The tomb of the royal founder and his queen is very superb.

At the entrance of St. Edmund's chapel is an alabaaster statue of John of Eltham, second son of king Edward II. His habit is that of an armed knight, and his head is encircled with a coronet of leaves. On a Grecian altar in the same chapel sits a statue of Lady Elizabeth Russell, represented as asleep, and pointing with her finger to a death's head under her right foot. The chapel of St. Michael, and that of St. Andrew, contain some of the finest monuments in Westminster Abbey.

The tombs in the area and aisles of the church are very numerous. Among the most celebrated we may see those of General Wolfe, William Shakspeare, John Milton, Oliver Goldsmith, Geoffrey Chaucer, George Frederic Handel and Sir Isaac Newton.

UNITED STATES BANK AT PHILADELPHIA.



This building is of white marble, with a front on the model of the Parthenon at Athens. The ascent to the porticos is by a flight of six steps. The basement projects about ten feet in front of the building. Upon this basement rise eight Doric columns four feet six inches in diameter and twenty-seven feet in height, supporting a plain entablature and a pediment. It is considered by many the most elegant building in the United States.

THE CAPITOL AT WASHINGTON.

The Capitol is a large and magnificent building of white free stone, built in the shape of a cross. In the centre is a spacious rotunda, and in the two wings are the Senate

Chamber and the Representatives' Hall. This Hall is semi-circular, ninety-five feet in length, and sixty in height, lighted from the top and adorned with a colonnade of pillars of breccia or pudding-stone, beautifully polished. Breccia is composed of fragments of minerals united together by cement, and presenting a variety of colours.

The Senate Chamber is of the same shape, and seventy-four feet long. The Rotunda is ninety-six feet in diameter, and ninety-six feet high to the top of the dome within. It is all of marble, and the floor is beautifully paved. The whole has a grand and imposing effect. Several pieces of sculpture are placed in niches in the walls, representing events in American history. The sound of a single voice uttered in this apartment, is echoed from the dome above, with a rumbling like distant thunder. The National Library is contained in the Capitol, and a series of national paintings by Col. Trumbull.

The Capitol is situated on an area enclosed by an iron railing, and including about twenty-two acres. It commands a beautiful and extensive view of the city, of the surrounding heights, and of the windings of the Potomac as far as Alexandria. The length of its front is three hundred and fifty-two feet ; the height to the top of the centre dome is one hundred and forty-five feet.

THE TREMONT HOUSE, BOSTON.

This is a spacious and splendid hotel, unsurpassed for elegance of structure and the style of its accommodations.

The front of the building is of Quincy granite, ornamented with a fine portico. The wings are brick, with stone

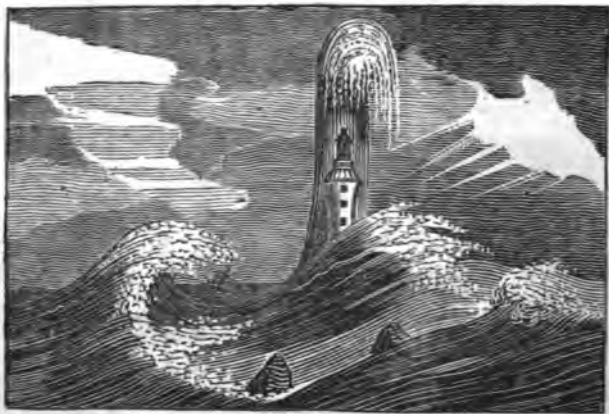


basements. The whole number of apartments in the building is one hundred and eighty.

EDDYSTONE LIGHT HOUSE.

The Eddystone Rocks, well known to seamen who sail in the English channel, consist of three principal ridges, and are situated south-south-west from the middle of Plymouth Sound. As they lie nearly in the direction of vessels coasting up and down the channel, before the es-

tablishment of light-houses they were very dangerous, and often fatal to ships under such circumstances. Their



situation is such, too, that they lie open to the very heavy swells of the Atlantic Ocean, and the bay of Biscay. Even in calm weather the swell at these rocks is tremendous.

The first man who was hardy enough to undertake building on these rocks was Henry Winstanly, of Littlebury in Essex. He commenced on his design in the year 1696, and completed it in four years. This gentleman was so confident of the stability of his structure, that he declared it to be his wish to be in it, "during the greatest storm that ever blew under the face of the heavens."

Mr. Winstanly was gratified in his wish. While he was there with his workmen and light keepers, the dreadful storm began, which raged so in the night of the 26th of November 1703. This was the most violent and destructive tempest ever known in Great Britain. On the next morning it was found that the light-house, and all its occupants had been entirely swept away. No relic of them was ever discovered.

In 1709 another light-house was built of wood, on a very different construction. It resisted the fury of the elements for forty-six years, and was then burnt to the ground. Two years afterwards a third building was commenced by Mr. Smeaton, and finished in August 1759. It was constructed in the following manner.

The rock, which slopes towards the South West is cut into horizontal steps, into which are dove-tailed and united by a strong cement, Portland stone and granite. The whole, to the height of thirty-five feet from the foundation, is a solid mass of stones, united by every means of additional strength. The building has four rooms, one over the other ; and at the top a gallery and lantern. It is nearly eighty feet high, and since its completion has been assailed by the winds and waters, without suffering the slightest injury.

MOUNTAINS.

MOUNT VESUVIUS.

Mount Vesuvius is situated at the distance of five Italian miles from the city of Naples, and is one of the most

dreadful volcanoes in the world. Its sides, towards the sea, are richly clothed with vines and fruit trees; the surrounding air is clear and healthy; and the neighboring



plain affords a delightful prospect. The ascent to its summit, however, is painfully tedious. After walking two miles over a kind of burnt earth, mixed with powdered stones and cinders, the traveller arrives at a naked plain. From several parts of this plain issues a sulphurous smoke, and in the centre of it rises another hill shaped like a sugar loaf, more difficult to ascend than the former.

At the summit of this hill is a vast mouth, about four hundred yards in diameter at the top, but shelving down on all sides like a funnel. From this mouth proceed a

continual smoke, and occasional eruptions of flame, ashes and burning matter. These eruptions have caused in different ages great devastations. In ancient history there are many dismal accounts of their ravages : and in later times they have sometimes raged with extraordinary fury.

In the year 1694, there was an eruption, which continued a great part of the month of April. It was very violent, and threw up ashes, stones and cinders with such force that some of them reached Benevento ; at the distance of nearly thirty miles. An immense quantity of melted minerals was likewise thrown out of the mouth, and ran slowly down the sides of the mountain. At this time, when the wind was in the east, the houses and streets of Naples were covered with ashes.

In the summer of 1707 there happened another terrible eruption, attended with such a rumbling and bellowing of the mountain, as far exceeded the report of the largest artillery. It threw up clouds of ashes into the air for several days and nights, and a shower of stones that killed both men and cattle. After this, it began to throw out a liquid torrent of pitch, or lava which seemed like a gentle stream of fire, and cooling in its progress, became as hard as flint at the bottom, but more spongy on the surface. This was succeeded by frequent flashes of fire like lightning, followed by loud claps of thunder. Such a thick cloud of ashes hovered over Naples, that the darkness was equal to that of midnight. Having

raged in this manner about fifteen days, the eruption entirely ceased.

It has been observed that though Mount Vesuvius often fills the neighboring country with terror, it contributes to the fertility of the soil, and the profusion of fruit and herbage with which it is covered. This fertility is caused by the heat of the buried fires, and the quantities of sulphur and saltpetre thrown out from the volcano.

Experience proves that earthquakes, after any continued eruptions of Vesuvius, are neither so frequent, nor so fatal as at other times. From this circumstance, the inhabitants are not at all alarmed by them, except when they are violent. The air is so far from being rendered impure by them, that Barra, a village at the foot of Vesuvius, near the sea, is remarkable for its healthfulness.

To these advantages, it may be added that the lava, on its cooling, forms solid masses, surpassing even marble in hardness ; from which tables, chimney-pieces, and even snuff-boxes are sometimes made. With this matter, the cities of Naples and Rome are paved ; as are also a great part of the ancient Roman highways.

MOUNT ETNA.

This famous mountain is on the eastern coast of Sicily. It rises more than ten thousand feet above the surface of the sea ; and it is one hundred and eighty miles round its foot. On its sides are about seventy cities, towns and villages, containing over an hundred thousand inhabitants.

The whole mountain is divided into three distinct regions, the fertile, the woody, and the barren. The fertile region is much broader than the rest, and extends on all sides from the foot of the mountain through an ascent of from twelve to eighteen miles. Terrible ravages are sometimes committed here by the eruptions. The city of Catania is situated in this region, which is rich in pastures, orchards and various kinds of fruit trees. The figs and fruits here are considered the finest in Sicily.



The woody region extends from eight to ten miles, in a direct line towards the top of the mountain. It forms a circle of beautiful green all round the mountain, finely contrasting with the white and snow-clad summit. It abounds in oaks, beeches and firs; and the air is cool,

and perfumed by the fragrant shrubs with which the whole ground is covered. Many parts of this region are exceedingly delightful.

The upper, or barren region is marked out by a circle of snow and ice ; which extends on all sides to the distance of eight miles. Its surface is for the most part flat, and the approach to it is marked by the decline of vegetation, and by uncovered rocks of lava and heaps of sand. The difficulty and danger of ascending the mountain are now increased by streams of melted snow, sheets of ice, and gusts of chilling winds.

The curious traveller, however, is amply rewarded for his labours and dangers, on reaching the summit. The number of stars seems increased, and their light appears brighter than usual. The whiteness of the milky way is like a blue flame shooting across the skies ; and with the naked eye we can see clusters of stars totally invisible in the lower regions.

In the middle of the snowy regions stands the great mouth of the volcano. This is described as a little mountain about a quarter of a mile in height, in the centre of a gently inclining plain. In the middle of this mountain is a large hollow, the inside of which is incrustated with salts and sulphur of different colours. From many parts of this hollow, clouds of sulphurous smoke are continually rolling ; and in the midst of it is the terrible gulf from which issue the most confused and frightful noises. During an eruption these may be heard at a prodigious distance.

About a mile below the foot of the great crater are the ruins of an ancient structure of brick, which some imagine to have been built by the philosopher Empedocles. This man was a native of Sicily, and was highly distinguished among his countrymen as an orator, poet and philosopher. It is said that he threw himself into the crater of Mount Etna, in order to make it believed, by his sudden disappearance, that he was of divine origin. The volcano, however, in one of its eruptions, threw out his sandals, and the manner of his death was thus discovered.

Mount Etna supplies Sicily and a large part of Italy, with the luxury of snow and ice. The trade in these articles belongs to the bishop of Catania, who is said to make by it from three to four thousand dollars a year. The woody region abounds with large chestnut trees. One of these is of such extraordinary size that one hundred horses may be sheltered under it from the sun.

The last eruption of Mount Etna was in the year 1830, when seven new craters were opened, and eight villages with their inhabitants were destroyed.

THE WHITE MOUNTAINS.

The White Mountains in New Hampshire are the loftiest in the United States, East of the Mississippi. They lie between sixty and seventy miles from the coast, yet their white summits are visible for many miles at sea. They extend about twenty miles from south-west to north-east, and their base is eight or ten miles broad.

The highest summit is Mount Washington, which rises 6428 feet above the level of the ocean.



The road from the sea-coast to the mountains passes along the head stream of the Saco, which rises among these mountains and breaks through them at a place known by the name of the Notch. This is a narrow defile, extending two miles in length between two large cliffs, which seem to have been torn asunder by some terrible convulsion of nature.

The entrance of the chasm is formed by two rocks standing at the distance of twenty-two feet from each other; one about twenty feet in height and the other about twelve. Half of the space is occupied by the brook mentioned as the head stream of the Saco, the other half

by the road. On entering the Notch, we are immediately struck with the wild and solemn appearance of every thing about us. The whole is upon a scale of unsurpassed grandeur. The huge and irregular rocks are heaped up to an immense height on each side, in masses of every form and size, and are white with the hoary moss that has been forming for ages.

About half a mile from the entrance of the chasm, we have a view of a very beautiful cascade. The stream issues from a mountain on the right, about eight hundred feet above the valley, and runs over a series of rocks almost perpendicular, with a course so little broken as to preserve the appearance of an uniform current, and yet so far disturbed as to be perfectly white. When the sun shines upon it, the cascade glitters down the steep like a stream of melted silver.

The Notch will long be remembered for the fate of a whole family, who were swept away by a slide of earth or avalanche, from the mountain, on the night of the twenty-eighth of August, 1826. This family by the name of Willey, occupied a neat cottage, in a very narrow passage between the bases of the two mountains, which was known as the Notch House. For two seasons previous, the mountains had been very dry, and about two months before there had been a slide at a short distance from the house.

On the morning of the twenty-eighth of August it began to rain and blow with great violence. The storm continued during the night, but the family retired to rest

without the least fear of approaching danger. Among them were five beautiful children from two to twelve years of age.

At midnight, the clouds which had gathered about the mountain seemed to burst and descend in a flood. The soil, which had already been soaked with rain, was suddenly loosened ; and the roots of the trees pushed and wrung by the winds, assisted in breaking up the earth. The avalanche began upon the mountain top directly above the house, and moved down in a direct line towards it in a sweeping torrent. It seemed like a river pouring from the clouds, full of trees, earth and rocks.

On reaching the house, it divided within six feet of it, passing on either side, sweeping away the stable and horses, and completely surrounding the dwelling. The night was dark and frightfully tempestuous. The family, it appears, sprang from their beds and fled naked into the open air. They were instantly overwhelmed and carried away by the torrent. The slide took with it every thing, forest, earth, and stones, down to the solid rock of the mountain.

In the morning a most frightful scene was exhibited. All the bridges over the streams were gone. The road was torn away to the depth of fifteen or twenty feet, or covered with immense heaps of earth, rocks and trees. :

In the Notch, and along the deep defile below it for a mile and a half, the steep sides of the mountain had slid down into this narrow passage, and formed a complete mass of ruins. The barn was crushed, but the

house was uninjured. The beds appeared to have been just quitted ; their coverings were turned down, and the clothes of the several members of the family lay upon the chairs and floor. The little green in front of the house was undisturbed ; and a flock of sheep remained there unharmed. The bodies of seven of the family were dug out of the drift-wood and mountain ruins on the banks of the Saco.

An ancient story was handed down among the savages of this region, that the whole country was once overwhelmed by a deluge, and that a single Indian and his wife saved themselves upon the top of these mountains. In this manner their race was saved from entire destruction. From this occurrence, the Indians regarded the mountains as the habitation of superior beings.

CATSKILL MOUNTAINS.

This is the name of a range of mountains in the northern part of New York, and branching into Canada. They are broken through by the Hudson about fifty miles above the city of N. Y. Their eastern face is steep, and displays an immense number of precipices of great extent. They appear encircling the mountains like enormous bands, and from their summits we have the most grand and delightful prospects of the great valley of the Hudson, and of the distant mountains of Connecticut and Massachusetts.

"From these summits," says a traveller in those regions, "we behold at dawn of day, a scene of unrivalled splen-

dour. The sun rises in dazzling brightness over the distant Tagkannac mountains, but the immense valley of



the Hudson is still clad in the shades of night. As the sun advances, objects in the valley are gradually and

dimly disclosed. Here and there appear white fogs, resting on the waters ; soon these are raised and expanded into clouds by the warmth of the sun, and tinged with gold and purple sail away far below, brushing the mountains with their dewy wings.

“The eye now wanders over a vast expanse like a world in miniature. The Hudson, many miles distant, appears at the base of the mountains diminished in appearance to a rivulet. From the Highlands to Albany, every town and village on its banks can be discerned ; ships with all their canvass spread appear dwindled to boats. The rising sun gleaming over the rivers and on the lakes of mountain and valley, renders them like crimson floods of fire.

“The mountains of Lake George, the Green Mountains of Vermont, and the lofty ranges of Massachusetts and Connecticut are in view, and their blue cloud-like summits seem mingled with the distant sky. The valley of the Hudson appears an immense plain chequered with groves and corn fields. Sometimes the valley is filled with clouds, resembling a boundless ocean, while the insulated summits are in the sunshine and clear sky. When put in motion by the wind, the clouds of the valley roll like the waves of a tempestuous sea, and storms are often seen sweeping far below, shrouding a part of the landscape in midnight darkness. You hear the thunder roll, and see the lightning play beneath your feet, while the mountain heights around you are in a calm and cloudless sky.”

The Pine Orchard is a spot upon these mountains about seven miles from the Hudson, where a road winds upwards to the height of 2274 feet. At this spot, upon a small plain scattered over with forest trees, stands an elegant hotel, called the Catskill Mountain House. In summer this is the general resort of visitors. The prospect from the place embraces some of the grandest views which the mountains exhibit.

THE BLUE RIDGE.

The most easterly ridge of the Apalachian Mountains in Virginia is known by the name of the Blue Ridge. The passage of the Potomac through these mountains at Harper's Ferry presents the appearance of an immense rent, three quarters of a mile wide, through a stupendous wall of rocks. The broken fragments of the mountain, which lie scattered around, and its craggy front torn down to the base, are proofs of the violence which must have attended the disruption.

"The distant finishing which Nature has given to the picture," says Mr. Jefferson, "is a true contrast to the foreground. It is as placid and delightful as that is wild and tremendous. For, the mountain being cloven asunder, she presents to your eye, through the cleft, a small catch of blue horizon, at an infinite distance in the plain country, inviting you, as it were, from the riot and tumult roaring around, to pass through the breach, and participate of the calm below.

"Here the eye ultimately composes itself; and that

way, too, the road happens actually to lead. You cross the Potomac above its junction, pass along its side through the base of the mountain for three miles, its terrible precipices hanging in fragments over you, and within about twenty miles reach Fredericktown, and the fine country round that. This scene is worth a voyage across the Atlantic."

A lofty crag upon the bank of the river has received the name of Jefferson's Rock.

CAVERNS AND GROTTOES.

GROTTO OF ANTIPAROS.



The island of Antiparos, in the Archipelago, is celebra-

ted for a remarkable cavern or grotto, of great extent. The entrance to it lies on the side of a rock, about two miles from the sea-shore, and is a very large arch, formed of rough craggy rocks, overhung with brambles and climbing plants. The following description of this grotto is given by a celebrated traveller :

“ The grotto in which we now were, is one hundred and twenty yards wide, one hundred and thirteen long, and about sixty yards high. These dimensions are somewhat different from those which travellers have generally presented to the public ; but they are certainly accurate ; for I took them with my own hand. Imagine then, an immense arch like this, lined with crystallized white marble, and illuminated by fifty torches, and you will have some idea of the place in which I spent three hours.

“ The roof, which is a fine vaulted arch, is hung all over with icicles of white marble, some of them ten feet long, and as thick as a man's waist. From these depend a thousand festoons of leaves and flowers of the same substance, but so extremely glittering that it is impossible to look upon them without dazzling one's eyes.

“ The sides of the arch seem planted with trees of white marble, rising in rows above each other. From these are hung beautiful festoons, tied as it were, from one to another, in prodigious quantities ; and in some places there actually seem to be rivers of marble, winding in a thousand elegant meanders. All these things have been made in a long course of years, by the dropping of

water, but they really look like trees and brooks transformed to marble.

“The floor was rough and uneven, with red, blue and yellow crystals growing out of it in an irregular manner. These were all shaped like pieces of saltpetre, but so hard that they cut our shoes ; and among them are placed icicles, or small pillars of white shining marble, to each of which our guides fastened two or three torches. All round the sides of the arch are white masses of marble, in the shape of oak trees, and sufficiently large, in many places, to enclose a piece of ground big enough for a bed chamber. One of these chambers has a beautiful curtain, whiter than satin, of the same marble, stretching entirely over the front. On this we all cut our names, and the date of our visit, as many other persons had done before us.

“Most of the columns thus formed in the grotto of Antiparos have been injured by the indiscreet curiosity of travellers, either for the purpose of examining their internal organization, or of enriching their cabinets. But new ones would continually be completed, were the portions approaching towards each other left untouched.

“It is not absolutely certain whether the utmost extremity of the cavern has ever been attained. The inhabitants of Antiparos affirm that it reaches below the sea, and that a goat having accidentally wandered into it, was found in the island of Nio, between thirty and forty miles distant. But although this is most likely a fabulous re-

port, it is not improbable that many recesses yet remain to be explored."

REMARKABLE GROTTO.

Among the curiosities of a country palace in Italy, is a noble grotto, the roof of which is lined with coral, mother of pearl, and other costly materials. The walls are lined with the same, and the pilasters are adorned with an organ, which by means of water, plays several different tunes. The heathen god Pan joins his pipe to the music, and is answered by the warbling of a great variety of artificial birds.

In the basin is a large dolphin carrying a woman on his back, and swimming about with several other figures, all moving as if alive. In another grotto, the heathen goddess Galatea passes from a door in a sea chariot, and returns again the same way, after having sailed some time upon the water. In one place, an angel blows a trumpet; in another, a clown carries a dish of water to a serpent, who lifts up his head and drinks; while smiths at work, mills in motion, and many other objects moved by water, contribute to adorn the grottoes of these beautiful gardens.

GROTTO OF NAZARETH.

On the mountain of Forty Days, situated in the plain of Jericho, is a remarkable grotto. The entrance to it would be very capacious, if two thirds of it were not filled up by part of the fallen roof. This conducts to another which affords a hiding place to an infinite number of bats.

In the right corner of this grotto, there is a large cistern, the plaster of which retains its original solidity, though in a few places it is broken. In the left corner is a small stair-case leading to a third grotto. This is much longer and broader than either of the former, and its walls are ornamented with Greek paintings of the twelve apostles, as large as life. These figures are so much changed that they could scarcely be distinguished, were it not that their names are written in Greek characters above their heads.

At the farther end of the grotto stands a square altar, above which is an oval painting in good preservation. No writer has been able to tell us who was the founder of these curious chapels. It is evident, however, that the grottoes have been made smooth and regular by human labour. The most probable supposition is that they were inhabited by a number of hermits, who devoted themselves to a life of retirement and holiness.

The summit of this mountain is covered neither with shrubs, turf, nor earth ; but consists of a solid mass of white marble, the surface of which has become yellow by the injuries of the air. On this summit, a chapel was formerly erected in remembrance of our Saviour's miraculous fast.

REMARKABLE GROTTO IN SOUTH AFRICA.

In the Kango is the greatest natural curiosity of South Africa, a grotto of unknown extent. It is divided into various apartments, from fourteen to seventy feet in

length, and from eight to one hundred in breadth. The **stalactites* united or disunited, form a great number of well shaped and various figures. Canopies, organs, pulpits, vast candles, immense pillars, heads of men and animals meet the astonished visitor on all sides.

To complete the surprise of the spectator, are various baths or cisterns of water, as clear as crystal, divided by partitions, as if they had been wrought by ingenious sculptors.

HOTTENTOT HOLLAND'S KLOFFE.



This famous pass, at the Cape of Good Hope, is perhaps one of the most surprising works of nature. It is

* Stalactites. A substance found suspended from the roofs of caverns formed by the dripping of water.

situated about thirty miles east of Cape Town, between two of the highest mountains of that immense ridge, stretching from east to west across the peninsula. This is the only communication from the ancient Dutch territory, adjoining the Cape town, into that country, either for wagons or cattle. By taking possession of it, an enemy might cut off all manner of supplies from the Cape Town and Fort by land.

The country between the Hottentot Pass and the Cape Town is very barren in its nature; with the exception of a small spot, well known for the production of the wine called Constantia. The produce of this is confined through the avarice of the Dutch.

WEYER'S CAVE.

The greatest natural curiosity in Virginia is Weyer's Cave, in Augusta county, among the mountains. It was named after its discoverer, who in 1806, when hunting, was led by his game to a small hole in the earth. This was found to be the entrance to an immense grotto, which was explored for more than a quarter of a mile. It has a great number of branches or apartments, abounding with sparry formations of great singularity and splendour.

One of these apartments is called Solomon's Temple, and presents a scene of almost unequalled splendour. Here there is a wave-like folding of incrustations, exactly resembling water tumbling over a precipice, and frozen in falling. In front is a large sofa, called Solomon's

Throne. On the left is a large transparent column called Solomon's Pillar. A few paces farther, there are thousands of white pieces hanging to the ceiling, of a winding form, called the Roddish Room.



A room in a different part of the cavern, to which you ascend by means of an elegant staircase formed by nature, is called the Ball Room. It is about forty yards in length, and ten in breadth, and the floor is quite level. At one extremity is what they call the Lady's Dressing Room, an apartment which seems to have been constructed by nature for that purpose. At the other end is a formation of spar, about four feet high, and twelve inch-

es in circumference, called the Recluse Candlestick. About the centre of this beautiful apartment, there is an imitation of a sideboard, furnished with decanters and tumblers.

From the ball room you pass through a narrow and difficult passage to Jacob's Ladder, which is hewn out of a sort of rock, supposed by many people to be natural. At the foot of this ladder is a low and dreary place, called the Dungeon. Next you enter the Senate Chamber, which contains a variety of beautiful spar. In this place there is a magnificent gallery projecting over one half of the room, and called the Music Gallery. The voice can be heard to re-echo in this room with such astonishing rapidity as to render speech unintelligible.

You then pass through an open and grotesque passage to Washington's Hall, the most splendid, extensive and beautiful room in the cave. The grandeur of its height, the variety of its representations of the works of art, the echoes of the voice, and the splendour and brilliancy of its spar, strike the mind with the utmost curiosity and wonder. The walls are strung with musical columns ; and by running a stick over them, you can produce a concert resembling the mingled notes of the drum, the tamborine and the piano.

On the right side of this apartment, there is a colonnade of marble statues ; over which is an imperfect imitation of a rake. Further on, you see an incrustation on the side of the wall, which extends from the floor to the ceiling, and represents a streak of lightning.

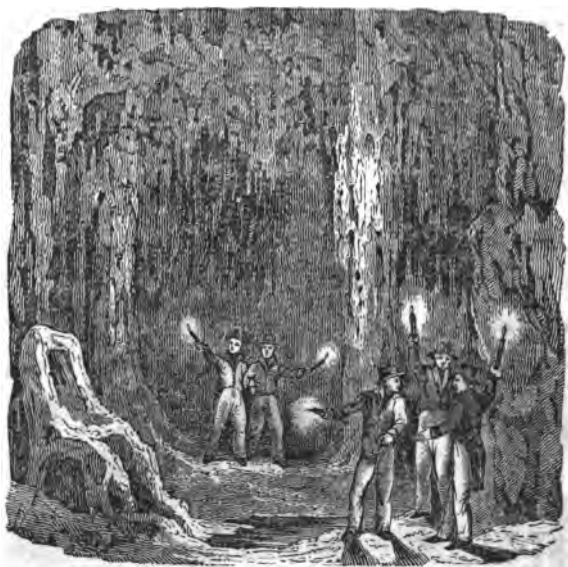
You now look forward and see Washington's Statue. At a distance it represents a gigantic figure, and from a closer view it appears like a large person veiled in white. Directly to the left is Lady Washington's Drawing Room, in which is a variety of beautiful drapery edged with white, hanging in the form of curtains. On the right side of this apartment, there is a declining rock, placed like a looking-glass, with a canopy above it, and bureau just before it. On this there is a very striking imitation of the opossum, of solid rock ; which could hardly be surpassed by the most exquisite artist.

After passing through several other rooms, and a rugged passage called the Wilderness, you come into Jefferson's Hall. This passage forms a wild grotesque scene, with numberless broken pillars. In the Hall is a massive body of spar, which would probably weigh thousands of tons. It is full of regular flutings round its semi-circular front, and is called the Tower of Babel. Facing this magnificent object, is something that resembles the new moon surrounded by stars. Next in view is the most beautiful piece of spar to be found in the cave, called the Lady's Toilet. About fifty yards further is Elijah's mantle, where this wonderful scene terminates.

MAMMOTH CAVE, KENTUCKY.

The Mammoth Cave, near Green River, in Kentucky, has been explored to the distance of sixteen miles. Its entrance is in the side of a steep hill. Its mouth is about forty feet in height by fifty in breadth, decreasing grad-

ually for the first half mile, till the cavern is no more than ten feet high and ten feet broad. Here a partition has been erected, with a door of convenient dimensions for the purpose of protecting the lights of visitors. There is at this place a current of air passing inwardly for six months, and outwardly for the remainder of the year.



Among the rooms in this immense cave is one called the Haunted Chamber. It is nearly two miles in length, twenty feet in height, and ten in breadth. The top is

formed of smooth white stone, soft, and much resembling the plastering of a room. There is a small quantity of water, constantly falling from above, which, in the course of ages, has worn from the stone at the top, some beautiful pillars which extend to the bottom of the room. They have the appearance of being the work of art.

In one of them there is formed a complete arm chair. By the side of this, is a clear pool of water. The sides of the room are elegantly adorned with a variety of figures, formed from the stone at the top, and hanging like icicles in winter from the eaves of buildings. At the end of this room is a kind of natural stair-case, to the depth of near three hundred feet. Here we find a beautiful stream of pure water winding its way along between the rocks.

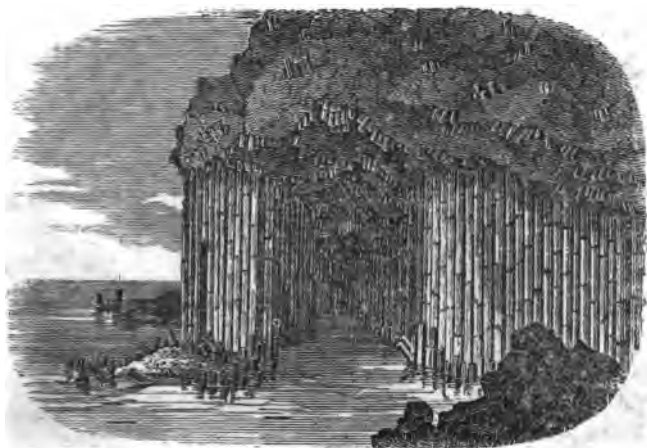
About a mile farther on, we find what is called the Chief City. A large hill situated in the centre of the cave would afford quite an extensive prospect, if there were light enough to distinguish objects. Here too is a very powerful echo. After travelling over rocks, hills and plains for about four miles, we come to a water-fall. Here the water dashes into a pit below of immense depth.

“A circumstance occurred here,” says a recent traveller, “that had nearly proved fatal to one of us. The sides of the pit are formed of loose rocks, and we amused ourselves by rolling them down, in order to hear them strike the bottom. Such is the depth of it, that a minute elapsed before we could hear them strike, and the sound

was very faint. One of our party venturing too near for the purpose of rolling a large stone, started the foundation on which he stood, and was precipitated down about twenty feet with the tumbling stones. Fortunately a projecting rock saved him from destruction.

"This put an end to all our amusements, and being much fatigued with a travel of twenty-four hours on foot, and seeing no fairer prospect of finding the end, than when we commenced, we concluded to return. After being forty-two hours absent from the light of day, we again found ourselves at the mouth of the cavern, and gave ourselves up to a refreshing sleep."

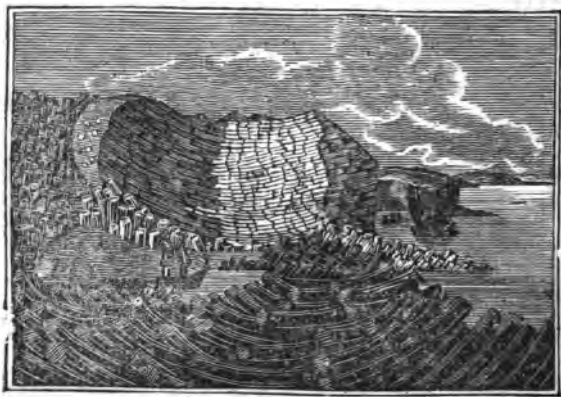
FINGAL'S CAVE.



The Cave of Fingal, in the island of Staffa, is proba-

bly one of the most magnificent caves that has ever been described by travellers. The mind, says Sir Joseph Banks can hardly form an idea more magnificent than such a space, supported on each side by ranges of columns, and roofed by the bottom of those which have been broken off in order to form it. The colour of these pillars is varied with a great deal of elegance, by a yellow matter which exudes between their angles. The whole cavern is lighted from without so that the farthest extremity is very plainly seen. Within, the air is perfectly wholesome, and free from the damp vapours with which caverns generally abound.

BENDING PILLARS IN STAFFA.



The Bending Pillars, which surround a large portion

of the island of Staffa, form one of the most wonderful curiosities in nature.

On the west side of the island is a small bay, where boats generally land. A little to the southward of this, the first appearance of pillars is to be observed. They are small, and instead of being placed upright, lie down on their sides, each forming a part of a circle. From hence you pass a small cave, above which, the pillars, now grown a little larger, are inclining in all directions. In one place a small mass of them very much resembles the ribs of a ship.

Over against this place is a small island called in Erse, Boo-sha-la, or the Herdsman, separated from the main island by a narrow channel. This whole island is composed of pillars, which are small, but by far the most beautifully and neatly formed of any about the place.

The main island, towards the North West, is supported by ranges of erect pillars, not tall, but of large diameters. At their feet is an irregular pavement, made by the upper sides of such as have been broken off, and extending under water as far as the eye can reach. The appearance of these larger pillars is magnificent, beyond any description that can be given of them.

GIANT'S CAUSEWAY, IRELAND.

The Giant's Causeway consists of many thousand pillars, standing perfectly erect, and close to each other. Most of them have five sides, some six, and others seven; yet they are so adapted to each other that there is

no opening or crack between them. They are from fifteen to twenty-four inches in diameter, composed of several joints or pieces of different lengths, exactly fitted to one another.



The sides of the pillars, which touch each other, are of a whitish free stone colour, but upon breaking some pieces, the inside appears like dark marble. This causeway runs from the bottom of a precipice into the northern ocean. Its extent is not known, but at low water it can be seen for at least six hundred feet in length. The breadth in the widest place is about 240, in the narrowest 120 feet. In some parts it is 15 or 20 feet, in others 36, above the level of the strand.

The magnificent columns of the Giant's Causeway are

supposed to have been formed by the eruption of lava from some grand volcano under the ocean, raging in former ages, but now extinct. This volcano is supposed to have been somewhere in the channel of the present sea, between the Causeway and the island of Staffa. The columns of this island are thought to have been formed by the same volcano.

REMARKABLE MONUMENTS AND INSCRIPTIONS.

NEW CHURCH, AMSTERDAM.

"Effen Uyt!"

These Flemish words are on a very ancient funereal monument of whitish marble, on which is also engraven a pair of slippers of a very singular kind. *Effen Uyt* means Exactly. The story is, that a man, tolerably rich, and who dearly loved good eating, took it into his head that he was only to live a certain number of years and no longer.

In this whimsey he counted that, if he spent so much a year, his estate and his life would expire together. It happened that he was not deceived in either of these particulars. He died precisely at the time he had foreseen, and had then so far exhausted his fortune, that after paying his debts, he had nothing left but a pair of slippers. His relations buried him in a decent manner, and caused the slippers to be carved on his tomb with the above words.

NORTH CHURCH, HERTS.

In this church is a brass plate fixed up, with a sketch of the head of *Peter the Wild Boy*, and the following inscription :

“To the memory of *Peter*, known by the name of the *Wild Boy*, having been found wild in the forest of Hertswold, near Hanover, in the year 1725. He then appeared to be about twelve years of age. In the following year he was brought to England, by order of the late Queen Caroline, and the ablest masters were provided for him. But proving incapable of speaking, or of receiving any instruction, a comfortable provision was made for him at a farm-house in this parish, where he continued to the end of his inoffensive life.”

It is reported that his countenance much resembled that of Socrates. He could never be taught to speak, though he hummed a tune or two very badly. He was fond of ale and tobacco, and had preserved so much of his court breeding, as to kiss the hand of the person who gave him money. He was extremely sensible of the change of weather, and used to howl and be very wretched before rain. He was supposed to have been an idiot purposely put in the way of George I., in the forest where he was first discovered.

MONUMENT TO SIR ISAAC NEWTON.

In Westminster Abbey is an elegant monument, with

appropriate figures to the memory of the immortal Newton, with the following inscription in Latin :

SIR ISAAC NEWTON,

Born December 25th, 1642, died 20th March, 1726.

Here is deposited Sir Isaac Newton, knight, who, by the light of mathematical learning, and a force of mind almost divine, first explained the motions and figures of the planets and planetary orbits; the paths of the comets, the tides and the ocean; and discovered, what no one before had ever suspected, the difference of the rays of light, and the distinction of colours thence arising. He was a diligent, faithful and penetrating interpreter of nature, of antiquity and the Holy Scriptures. By his philosophy he asserted the majesty of God, the greatest and most glorious of all beings; and by his morals expressed the simplicity of the Gospel. Let mortals congratulate themselves that there has been so great, so good a man, the glory of the human race.

TOMB OF WASHINGTON.

The remains of the greatest and best of men are deposited in the most humble of sepulchres. His tomb at Mount Vernon is a simple excavation in the earth, walled with brick, and overgrown with cedars.

“ Art to his fame no aid hath lent—
His country is his monument.”

Tomb of Washington.



TOMB OF NAPOLEON

The tomb of Napoleon Bonaparte is in a secluded recess, near Longwood, in the rocky island of St. Helena. It is surrounded by a fence, enclosing a piece of ground containing weeping willows, and by an inner iron fence. The tombstone is about nine inches high, without any inscription. The body is deposited in a mahogany coffin, which is placed within three cases. On the outer case is the inscription, *General of the French*. By his side lies the sword which he wore at Austerlitz.

Tomb of Napoleon.



CELEBRATED CATARACTS AND SPRINGS.

FALLS OF NIAGARA.

The Falls of Niagara are situated on the borders of Canada and New York. The river at this place runs from S. S. E. to N. N. W. Of the falls it is impossible to give any thing like an adequate description. Let the reader imagine the waters of the great inland seas of America, discharging their immense volume through a single river three quarters of a mile wide, and rushing in one great mass over a precipice of 160 feet perpendicular descent, and he may form some conception of the grandeur of the scene here exhibited.

A small island stands perched upon the edge of the



cataract, breaking the wide sheet of water as it pours over the dam. The whole cataract forms an irregular semi-circle. The Canada side presents the deepest hollow, which is called the Horse-shoe Fall. Visitors sometimes pass under the fall, between the sheet of water and the rock. They can proceed only a short distance, however, without danger of being blinded by the strong driving showers of spray and violent whirls in the air. The following eloquent description is from an account of the Falls, by the Rev. Mr. Greenwood, of Boston.

“From Waterloo we pass on by a level road, immediately on the western bank of the Niagara, and observe that the river continually becomes wider, till at length it divides into two streams which sweep round an island

several miles in length. They then unite again, forming one stream as before, only that it is increased in breadth and swiftness. And now the interest thickens and begins to grow intense. Hitherto we had been travelling on the side of a large river, it is true, but one not much distinguished otherwise, either by its motion, its shape, or the beauty of its borders. We are obliged to call on ourselves to consider where we are, and whither we are going; for Niagara itself seems unconscious of the grand associations with which it is freighted.

“It moves as if unmindful, or as not caring to put the traveller in mind, that its waters have come down through the whole length of Erie, from the far away Huron, Michigan, Superior; that they are just about to rush over the wondrous precipice below, and then are to hasten forward into another majestic lake, and from it are to pass through the portals of a thousand islands, and the alternate rapids and lakes of a noble and romantic river, washing the feet of cities, and so to flow on into the all receiving sea.

“We are obliged to remember this, I say; for the unpretending waters, though pressing forward continually and intently, have thus far told us nothing themselves, of their long pilgrimage behind, or the yet more eventful journey before them. But here, as they are meeting round Grand Island, they break their silence and speak, and the whole scene becomes full of spirit and meaning. Here, about three miles from the Falls, you see the white crested rapids tossing in the distance be-

fore you. Here, even in the most unfavorable state of the weather, you hear the voice of the cataract, pervading the air with its low, monotonous, continuous roar. And here you see a column of mist rising up, like a smoke in distantly burning woods, and designating the sublime scene over which it is immediately hanging.

"A mile or two is soon passed, and now we turn a little from the road to the right, in order to have a near view of the rapids. These occupy the whole breadth of the river, from shore to shore, and extend a half a mile back from the Falls, and are formed by the rush of the entire body of waters down a rough bed, the descent of which in the course of this half mile is fifty feet. Here all is tumult and impetuous haste. The view is something like that of the sea, in a violent gale. Thousands of waves dash eagerly forward, and indicate the interruptions which they meet with from the hidden rocks, by ridges and streaks of foam. Terminating this angry picture, you distinguish the crescent rim of the British Fall, over which the torrent pours and disappears. The wildness and the solitude of the scene are strikingly impressive. Nothing that lives is to be seen in its whole extent. Nothing that values its life ever dares venture it there. The waters refuse the burden of man and of man's works. Of this they give fair and audible warning, of which all take heed. They have one engrossing object before them, and they go to its accomplishment alone.

“Returning to the road, we ride the last half mile, ascending gradually till we come to the public house. A foot path through the garden at the back of the house, and down a steep and thickly wooded bank, brings us upon Table Rock, a flat ledge of limestone, forming the brink of the precipice, the upper stratum of which is a jagged shelf no more than about a foot in thickness, jutting out over the gulf below. Here the whole scene breaks upon us. Looking up the river we face the grand crescent, called the British or Horse-shoe Fall. Opposite to us is Goat Island, which divides the Falls, and lower down to the left is the American Fall.

“And what is the first impression upon the beholder? Decidedly I should say that of beauty; of sovereign majestic beauty it is true, but still that of beauty, soul-filling beauty, rather than of awful sublimity.

“Every thing is on so large a scale; the height of the cataract is so much exceeded by its breadth, and so much concealed by the volumes of mist which wrap and shroud its feet; you stand so directly on the same level with the falling waters; you see so large a portion of them at a considerable distance from you; and their roar comes up so moderated from the deep abyss, that the loveliness of the scene at first sight is permitted to take precedence of its grandeur.

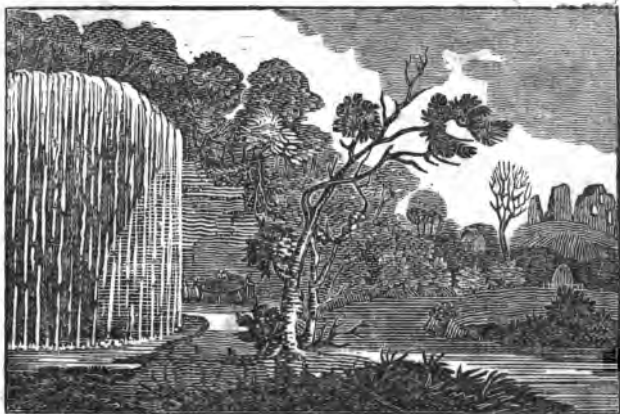
“Its colouring alone is of the most exquisite kind. The deep sea green of the centre of the crescent, where it is probable the greatest mass of water falls, lit up with successive flashes of foam, and contrasted with the rich

creamy whiteness of the two sides or wings of the same crescent ; then the sober grey of the opposite precipice of Goat Island, crowned with the luxuriant foliage of its forest trees, and connected still further on with the pouring snows of the greater and less American Falls ; the agitated and foamy surface of the waters at the bottom of the Falls, followed by the darkness of their hue as they sweep along through the perpendicular gorge beyond ; the mist, floating about, and veiling objects with a softening indistinctness ; and the bright rainbow which is constant to the sun, altogether form a combination of colour, changing too with every change of light, every variation of the wind, and every hour of the day, which the painter's art cannot imitate, and which nature herself has perhaps only effected here.

“ And the motion of these Falls, how wonderfully fine it is ! how graceful, how stately, how calm ! There is nothing in it hurried or headlong, as you might have supposed. The eye is so long in measuring the vast and yet unacknowledged height, that they seem to move over almost slowly ; the central and most voluminous portion of the Horse-shoe even goes down silently. The truth is that pompous phrases cannot describe these Falls. Calm and deeply meaning words should alone be used in speaking of them. Any thing like hyperbole would degrade them, if they could be degraded. But they cannot be. Neither the words nor the deeds of man degrade or disturb them. There they pour over in their collected might and dignified flowing, steadily, constantly, as they

always have been pouring since they came from the hollow of His hand, and you can add nothing to them, nor can you take any thing from them."

DROPPING WELL. .



The Dropping Well, at Knaresborough, in Yorkshire, is the most famous of all the petrifying waters in England. It drops from a porous rock, and the ground upon which it has fallen, for twelve yards long, is now changed into solid stone. A little rivulet, that runs from this well, falls into the Nid, where it has formed a rock that stretches some yards into the river.

THE ROARING CASCADE, JAMAICA.

In St. Anne's Parish, Jamaica, is a very remarkable cat-

aract formed by the White River, which is of considerable magnitude, and, after a course of about twelve miles among the mountains, precipitates itself in a fall of three hundred feet. The fall gradually widens in its descent until it reaches the bottom, where it forms a beautiful circular basin, and then flows away in a winding course towards the sea. Through the whole descent it is broken and interrupted by regular steps, incrustated over a kind of soft chalky stone, which yields easily to the chisel.

So vast a discharge of water, widely broken and agitated by the steepness of the fall, dashing and foaming from step to step, exhibits a pleasing and a sublime scene. It is much swollen by the supplies it receives during the rainy season, and its grandeur is at that time much heightened. The roaring of the flood, the tumultuous violence of the torrent, echoing from cliff to cliff; the gloom of the overhanging wood, contrasted with the serene softness of the sky, the silver glitter of the spray, and the smooth surface of the basin below, form altogether an assemblage of objects, the most happily mingled, and beyond the power of painting to express.

THE GEYSER, OR BOILING SPRING.

Among the boiling springs in the neighborhood of Mount Hecla in Iceland, none is more wonderful than the Geyser. This rises in the midst of other springs, near to the hills. The water boils with a loud rumbling noise in a well of an irregular form, about six feet in its great-

est diameter. From thence it bursts forth into the air, and subsides again nearly every minute. The jets are dashed into spray as they rise, and are from twenty to thirty feet high. Volumes of steam or vapour ascend with them, and produce a most magnificent effect.



The jets are forced in rising to take an oblique direction, by two or three stones which lie on the edge of the basin. Between these and the hill, a distance of eight or nine feet, the ground is remarkably hot, and entirely bare of vegetation. If the earth is stirred, a stream instantly rises, and in some places it is covered with a thin coat of sulphur. In one place near it, there is a white dust on the surface of the soil, which by the taste

appears to be alum. On the whole, this beautiful boiling spring is a most curious and interesting object.

LAKE GEORGE.

Lake George lies in the north eastern part of New York, between Lake Champlain and the Hudson. It is thirty-three miles long and two broad. Its greatest depth is sixty fathoms. It abounds in trout, bass, perch, and other similar fish. The clearness of its waters and the beautiful scenery about it, have rendered this lake the admiration of every traveller.

Lake George is universally considered the most beautiful sheet of water in the United States. It is surrounded by noble mountains on all sides. Those on the East are high, bold, and in various places naked and hoary. On the West they are somewhat inferior, and generally covered with a thick forest to their summits. The road for the three or four last miles passes through a forest, and conceals the lake from the view of the traveller until he arrives at an eminence at a short distance from the water. Here a prospect is at once opened, the splendour of which is rarely exceeded.

The water of this lake is sweet, pure and clear, and of an elegant hue; in the sunshine presenting a gay luminous azure, and brilliant with a continually undulating lustre. It is dotted by a large number of islands of every size and shape. Some are mere rocks, bare and naked. Some are covered with a thick growth of forest wood, others are without a single bush. These islands

are beautifully arranged, in pairs and larger groups ; or sometimes perhaps resting in solitary loveliness upon the bosom of the waves.

The shores of the lake are also singularly beautiful and varied. On one side is a long beach of silver coloured sand, showing the purity of its waters in the strongest light. On another is a thick, dark forest, rising immediately from the rocky shore overhanging the lake with its gloomy shadows. In many places, a smooth sloping margin, for the distance of one, two, or three miles, presents a cheerful border, as the seat of present or future cultivation. The beauties of the shore and of the islands are much heightened by being imaged in the fine expanse below, where they are seen in perpetual succession, in great exquisiteness of form, and firmness of colouring. Many battles were fought upon the borders of this lake, during the early wars with the French, and in the Revolution.

LAKE OF THE DISMAL SWAMP.

The lake of the Dismal Swamp, between Alexandria and Virginia, which contains about 250 square miles, gave rise to the following beautiful little ballad, written by Mr. Thomas Moore, the celebrated Irish poet. The story is supposed to be the exclamation of a maniac, upon the death of a lady to whom he paid his addresses, and whose loss deprived him of his senses. The scene is the lake of the Dismal Swamp.

THEY made her a grave too cold and damp
For a soul so warm and true,
And she's gone to the lake of the *Dismal Swamp*,
Where all night long, by a fire-fly lamp*,
She paddles her white canoe.

And her fire-fly-lamp I soon shall see,
And her paddle I soon shall hear :
Long and loving our life shall be,
And I'll hide the maid in a cypress tree,
When the footstep of death is near.

Away to the *Dismal Swamp* he speeds,
His path was rugged and sore,
Thro' tangled juniper beds of reeds,
Thro' many a fen where the serpent feeds,
And man ne'er trod before.

And when on the earth he sank to sleep,
If sleep his eye-lids knew,
He lay where the deadly vines do weep
Their venomous tears, and nightly steep
The flesh with blistering dew.

And near him the sea-wolf sturr'd the brake,
And the rattle-snake breath'd in his ear,

* The Fire-fly is an insect common in this part of the country. In its flight, at short intervals, it sheds a beam of apparent fire, or lightning, brighter than the glow-worm. It is so perfectly harmless that the children amuse themselves in following and catching it. It is said that three or four of these insects tied to the top of a stick, are used by travellers as a torch.

Till he starting cried, from his dream awake,
Oh when shall I see the dusky lake,
And the white canoe of my dear ?

He saw the lake ; and a meteor bright
Quick o'er the surface play'd.
“ Welcome,” he said, “ my dear one's light !”
And the dim shore echoed for many a night
The name of the death-cold maid !

Till he formed a boat of the birchin bark,
Which carried him off from the shore ;
Far he followed the meteor-spark ;
The winds were high, and the clouds were dark,
And the boat return'd no more ;

But oft from the Indian hunter's camp
This lover and maid so true,
Are seen by the hour of midnight damp,
To cross the lake by a fire-fly lamp,
And paddle their white canoe.

REMARKABLE ROADS AND BRIDGES.

ROCK BRIDGE, VIRGINIA.

The Rock Bridge, over Cedar Creek, a little stream running into the Potomac, is formed of a huge rock thrown across an enormous chasm two hundred feet in depth. This bridge is sixty feet in width and covered

with soil and trees. It has thus been described by Mr. Jefferson :

“ Though the sides of this bridge are provided in some parts with a parapet of fixed rocks, yet few men have the resolution to walk to them, and look over into the abyss. You involuntarily fall on your hands and feet, creep to the parapet and peep over it. Looking down from this height about a minute gave me a violent headache. If the view from the top be painful and intolerable, that from below is delightful in an equal extreme. It is impossible for the emotions arising from the sublime, to be felt beyond what they are here ; so beautiful an arch, so elevated, so light, and springing as it were up to heaven ! the rapture of the spectator is really indescribable ! The fissure continuing narrow, deep and straight, for a considerable distance above and below the bridge, opens a short but very pleasing view of the North Mountain on one side, and Blue Ridge on the other, at the distance each of them of about five miles. This bridge, is in the county of Rockbridge, to which it has given name, and affords a public and commodious passage over a valley, which cannot be crossed elsewhere for a considerable distance.”

THE RIALTO, AT VENICE.

The bridge at Venice which bears the name of Rialto, was commenced in 1588, and completed in 1591. It is situated nearly in the middle of the grand canal which traverses the whole city, dividing it into two nearly

equal portions, and is formed of one arch about eighty-three feet wide. A double row of mean shops, twenty-four on each side, are built upon the bridge, which is so coated with dirt as scarcely to permit the marble of which it is constructed to be visible.



By these shops it is in fact divided into three distinct though narrow streets. Being of great height in the centre, it is mounted and descended by long flights of steps. The elegance of the bridge consists wholly in the peculiar form of its arch, which at the time of its construction, might justly command admiration. It is said to have been designed by the celebrated Michael Angelo. Its dimensions are as follows : the compass of the arch is exactly one third part of a circle, its width on the

level of the water is ninety-five feet, and its height twenty-four.

BRIDGE OF BOATS.

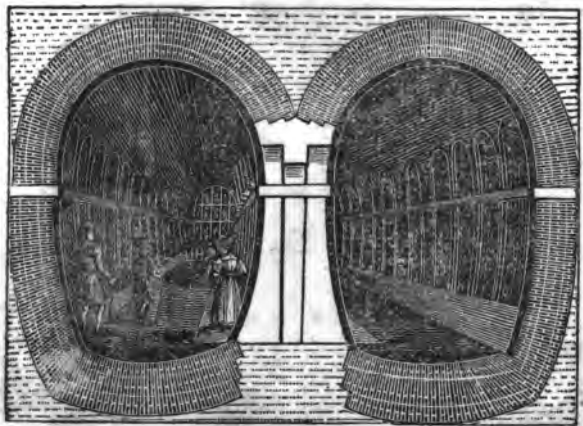
The bridge of boats, at Rouen, built in place of the magnificent bridge erected there by the Romans, is mentioned by a modern writer as one of the greatest wonders of the present age. It is nearly nine hundred feet long, paved with stone, and so firm that horses and carriages with the greatest burthens pass over it in perfect safety, although there are no rails on either side. It always floats, and rises with the tide, or as the land-waters fill the river. The boats are admirably moored with strong chains, and the whole is constantly repaired, though now very old.

THE THAMES TUNNEL.

The Tunnel is a remarkable passage under the river Thames, built at a part of the river where a bridge would be too great an inconvenience to the navigation. This work was performed by sinking a perpendicular shaft near the river, and working horizontally under the stream.

The laborers in this process were aided by a frame work called a *Shield*, which prevented the earth from caving in around them. This was pushed forward as the work proceeded. As fast as the excavation was made, the tunnel was formed by mason-work into two arches. In this manner the work has been carried beyond the middle of the river, although the water has several times

burst through. The enormous expense of the undertaking has caused a suspension of its progress ; and there are doubts whether it can be completed, owing to the



looseness of the soil which remains to be worked. Should the tunnel be finished, it would exhibit a work without a parallel either in ancient or modern times.

THE ROAD OF THE SIMPLON.

The Simplon is a mountain situated in the chain of the higher Alps, between the Valais and Redmont. At the beginning of the present century, a magnificent road was made over this mountain by order of Napoleon Bonaparte. This road was executed at the expense of the French government and of the kingdom of Italy. It ex-

tends from *Ghis* to Domo d' Ossola, is twenty-five feet wide, and of a very gentle slope through the whole of its course.



The works on the side of Valais were directed by French engineers, and those on the southern part by Italians, who had much greater difficulties to encounter, being obliged continually to work upon the hardest

rocks. This magnificent road, its bridges, and numerous galleries cut through the rock, must rank among the most remarkable monuments of the kind in the world. Add to this the beautiful and wild scenery which Nature has displayed so lavishly in this region, and there can be no wonder that it is a prominent object of curiosity to travellers.

The road begins at Glis, and after crossing a covered bridge of uncommon height and beauty over the Simplon, at the distance of a league and a half you reach Ried. You next go through a forest of larch trees, and after having proceeded along dreadful precipices, reach the first gallery, which is ten paces long. You now cross the Kander over a bridge eighty feet high, and after half an hour's walk you arrive at a few scattered houses called Persal, where you may procure refreshments. Beyond Persal, the road, which continues suspended over the brink of the precipice, continues half a league in long windings as far as the bridge of Oesbach. You then enter the second gallery which is thirty paces long.

You then leave on your left the glacier of Kaltwasser, from which descend four cascades, whose waters are carried across the road, in aqueducts of a beautiful construction, and then fall into the abyss. You then arrive at the third gallery, fifty paces long. At a short distance from this is the most elevated point, indicated by a kind of mile-stone.

On the south side, the road is still more remarkable. A little beyond the fourth gallery, which is eighty paces

long, you meet the beautiful cascade of the Frissinone ; near which is the fifth gallery, and the longest of all, being 202 paces in extent. At no great distance from Gondo where there is a tower seven stories high, is seen a cascade that falls from the defile of Zwischbergen, in which there is a gold mine. Before the new road was made, merchandise was transported on mules, and, in stormy weather, hundreds of beasts of burden were obliged to stop for shelter during several days at the inn of Gondo.

A little below Gondo, a small chapel is built, on the confines of the Valais and of Italy. The first Italian village is called San Marco ; next comes Isella, or Dazio, where travellers are searched. You soon after enter a dreary defile which leads to the little village of Dwedro, occupying a pleasant district, though it is immediately surrounded by barren rocks. You then enter a narrow wild valley, pass over two bridges into the sixth and last gallery, and arrive at Crevola. Here you pass over the Veriola, across a bridge that is a master-piece of architecture and sixty yards long. From thence to Domo d' Ossola it is one league.

Whenever a storm succeeds several rainy days, it is advisable to stop at this place, to avoid the danger of being crushed to death by the stones that fall from the tops of the mountains. The valley is very narrow, most of the rocks are split, and the blocks on the summits, being rendered slippery by the rain, and loosened by the wind, fall along the rocks as thick as a shower of hail.

Both in spring and winter this road is extremely dangerous.

THE SUMMIT BRIDGE.



This bridge crosses the Deep Cut of the Delaware canal. It is a single arch, 255 feet in length. It is about 85 feet above the canal, and presents a beautiful view to the passengers as they are about to go under it.

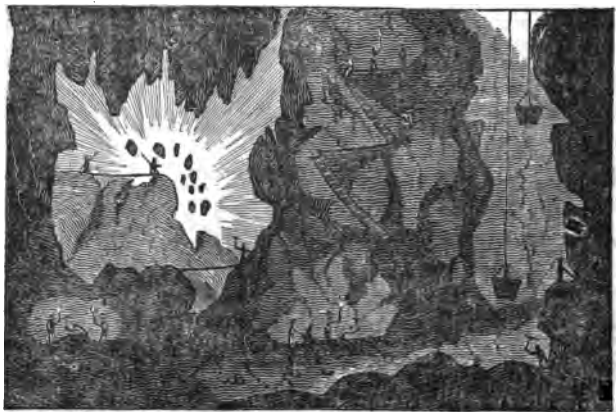
WONDERFUL ROAD.

Among other grand works, Peter I. caused a road to be cut from St. Petersburg, 734 wersts or four hundred and eighty-seven English miles in a direct line. Vast forests were cut through, and a passage made through morasses till then thought impassable. Immense quanti-

ties of timber were hewn down, ditches were made, and the earth being thrown up and levelled, straight firs, with their surfaces made plain were laid close to each other upon it. These were supported by a foundation of the same kind of timber, composed of a row of trees on each side secured by cross timbers. This road of timber was carried about one hundred and fifty wersts. A calculation has been made that it contained two million one hundred thousand trees.

MINES.

IRON MINE AT DANNEMORE.



“The mines of Dannemore,” says a modern traveller,
“are celebrated for producing the finest ore in Europe.”

It is not dug as in the mines of tin and coal in England, but torn up by powder. This operation is performed every day at noon, and is one of the most tremendous it is possible to conceive. We arrived at the mouth of the great mine, which is nearly half an English mile in circumference, in time to be present at it. Soon after twelve o'clock, the first explosion began, which I can compare to nothing so aptly as subterraneous thunder, or a discharge of volleys of artillery under ground. The concussion was so violent as to shake the surrounding earth.

As soon as the explosions were finished, I determined to descend into the mine, though there was no way to do this but in a large deep bucket, fastened by chains to a rope. The inspector, at whose house I had slept the preceding night, took no little pains to dissuade me from the resolution, and pointed out the melancholy accidents that sometimes happen on such occasions. Finding, however, that I was deaf to all his remonstrances, he provided a clean bucket, and put two men in it to accompany me.

I am not ashamed to own that when I found myself suspended between heaven and earth by a rope, and looked down into the deep and dark abyss before me, to which I could see no termination, I shuddered with apprehension, and half repented my curiosity. This, however, was only a momentary sensation, and before I had descended one hundred feet, I looked round on the scene with tolerable composure. It was near nine min-

utes before I reached the bottom, it being eighty fathoms, or four hundred and eighty feet deep.

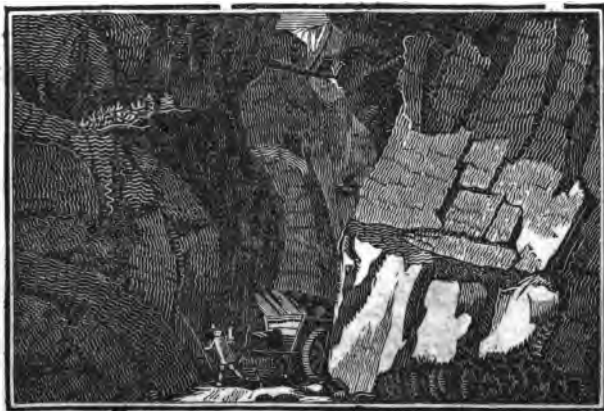
The view of the mine, when I set my foot on the earth, was awful and sublime in the highest degree. The light of day was very faintly admitted into these caverns ; in many places it was absolutely lost, and its place was supplied by flambeaux. I saw beams of wood across from one side of the rock to another, where the miners sat employed in boring holes for the admission of powder with the utmost unconcern, though the least dizziness must have made them lose their seat, and have dashed them to pieces on the rock beneath.

I remained three quarters of an hour in these gloomy and frightful caverns, and traversed every accessible part of them, conducted by my guides. The weather above was very warm, but here the whole surface of the ground was covered with ice ; and I found myself surrounded with the colds of the most rigorous winter, amid darkness and caves of iron. In one of these, which ran a considerable way under the rock, were eight wretches warming themselves round a charcoal fire, and eating the scanty subsistence produced from their miserable occupation. They rose with surprise at seeing so unexpected a guest among them ; and I was not a little pleased to dry my feet at their fire

There are no less than one thousand eight hundred men constantly employed in these mines, and their pay is only a copper dollar, or about five cents a day. They

were first opened about 1580, and have been worked constantly ever since.

SLATE QUARRIES, LONGSLEDDALE, WESTMORELAND.



There are few places in Great Britain, where slate is worked as a mine, under ground. Most of the quarries are open to the day ; and the covering of other rocks, or of coarse slate, which must be removed, greatly increases the expense.

The slate in Westmoreland is blasted from the quarry in large masses, and split with proper tools by the workmen. Many of these quarries are of great depth, and the different clefts present a very rude and grotesque appearance. In some parts of Westmoreland the slates

are conveyed from the quarries on the backs of small mountain horses and then placed in wagons. By the introduction of iron railways, however, two or three wagon loads of slates chained together are now drawn by a single horse.

SALT MINES, IN POLAND.



At Wielitska, a small town about eight miles from Cra-cow in Poland is a remarkable salt mine, which has been wrought above six hundred years. There are eight openings or descents into this mine, six in the field and two in the town itself. The openings are five feet square, and about four wide. They are lined throughout with timber, and at the top of each of them is a large wheel,

with a rope as thick as a cable, by which things are let down and drawn up. This is worked by a horse.

When a stranger wishes to gratify his curiosity by seeing the works, he must go down by one of these holes. He is carried down a dark and narrow well to the depth of six hundred feet ; and you may well imagine that the descent is very slow and uncomfortable. The place where he is set down is perfectly dark, but the miners who attend him strike fire, light a small lamp, and lead the way onward. The course is now through a number of winding dark passages, descending lower and lower, till they reach certain ladders ; and it is at the bottom of the last ladder that the traveller finds himself repaid for all his fatigue and danger.

Here the stranger is received in a small dark cavern, walled up perfectly close on all sides, where the guide, as if by accident, puts out his light. After some time, he catches the stranger by the hand, and drags him through a narrow passage into the body of the mine. A little world, the lustre of which is scarcely to be imagined, bursts at once upon his view.

This is a spacious plain, containing a whole people, a kind of republic under ground, with carriages, houses, roads, &c. It is scooped out of one vast bed of salt, which is all a hard rock, as bright and glittering as crystal. The whole space before him is formed of lofty arched vaults, supported by columns of salt, and roofed and floored with the same. There are several lights in this place continually burning for the general use ; and their

blaze reflected from every part of the mine, gives a more glittering prospect than any thing above ground can possibly exhibit.

Though the salt is generally clear and bright as crystal, in some places it is tinged with all the colours of precious stones. Many columns look like masses of rubies, emeralds, amethysts and sapphires, darting a radiance which the eye can hardly bear. Besides the variety of forms in those vaults, tables, arches and columns, which are framed as they dig out the salt for the purpose of keeping up the roof, there are a great many others, grotesque and finely figured, the work of nature. The roofs of the arches are, in many places, adorned with salt, hanging from the top in form of icicles, and having all the hues and colours of the rainbow.

In various parts of this spacious plain stand the huts of the miners and families, some single and others in clusters like villages. They have very little communication with the world above ground ; and many people are born and pass all their lives there. Through the midst of this plain lies a road, which is always filled with masses of salt out of the farther part of the mine. The drivers of these carriages are all merry and singing, and the salt looks like a load of gems. A great number of horses are kept here, and when once let down, they never see day-light again ; but some of the men take frequent occasions of going up, and breathing the fresh air.

The instruments principally used by the miners are

pick-axes, hammers and chisels, with which they dig out the salt in large masses, each of many hundred weight. As soon as these are got above ground, they are broken into smaller pieces, and sent to the mills, where they are reduced to powder. The finest sort of salt is frequently cut into toys, and often passes for real crystal. The most surprising curiosity in the whole place is a spring of fresh water running constantly through a large part of the mine, sufficient to supply the inhabitants and their horses, so that they have no need of any from above ground.

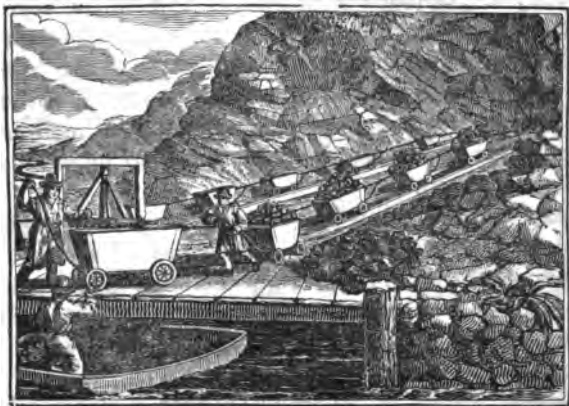
The salt dug from this mine is called ziebra, or green salt, but for what reason it is difficult to determine, its colour being an iron grey. When pounded it has a dirty ash colour, like what is called brown salt. The mine appears to be inexhaustible.

COAL MINES, PENNSYLVANIA.

In no part of the world is coal found more abundantly than in Pennsylvania. It abounds in the Wyoming and Lackawana valley, between the Blue Ridge and the Susquehanna. The district of the anthracite coal is principally occupied by mountains, often broad, with table summits, and rising generally about 1500 feet above the ocean. These mountains are in a very savage state, and are inhabited by wolves, bears, cougars, deer and other wild animals.

The anthracite region of the Susquehanna lies in the valley formed by the Susquehanna and the Lack-

awanna. It is between sixty and seventy miles long, and five broad. The coal lies in beds, and not as commonly in veins; these are of every thickness, from a foot to twenty-seven feet. The extent of these beds is im-



mense ; they break out in the precipices and hills, and in the banks of the rivers, and form in some places their pavements. They appear in the sides and channels of almost every stream from the mountain ; they blacken the soil in numerous places ; and wells are often sunk in the coal.

In many of the mines of this region, there are numerous vegetable impressions in the slate which forms the roof and sometimes in that of the floor ; they exist also, in the sandstone and sometimes in the coal itself. There

are instances where they fill the slate for a space of ten feet in thickness. The impressions are very perfect, and indicate repose and calm at the time they were formed. The leaves of the plants are usually in full expansion, the most delicate parts of their structure being accurately copied and preserved. Large quantities of clay iron and bog ore are connected with the coal strata of this valley, and mineral springs occur in numerous places.

PYRAMIDS AND PILLARS.

POMPEY'S PILLAR.

The pillar of Pompey, as it is generally called, is situated about a quarter of a league from the southern gate of Alexandria in Egypt. It is composed of red granite. The capital is Corinthian, ornamented with palm leaves, and not indented. The whole column is 114 feet high, perfectly well polished, and only a little shivered on the eastern side. Nothing can surpass the majesty of this monument. Seen from a distance, it overtops the town and serves as a signal for vessels; and on a nearer approach, one can never be tired with admiring the beauty of the capital, the length of the shaft, and the simplicity of the pedestal.

A story is told by a traveller, of some English captains, which were determined to drink a bowl of punch on the top of Pompey's Pillar. When arrived at the spot, many contrivances were suggested to accomplish the desired point. But their labour was in vain, and they began to

despair of success, when the genius who struck out the frolic, happily devised the means of performing it.

A man was despatched to the city for a paper kite. The inhabitants were by this time apprized of what was going forward, and flocked in crowds to be witnesses of the address and boldness of the English. The kite was brought and flown so directly over the pillar, that, when it fell on the other side, the string lodged upon the capital. A two inch rope was then tied to one end of the string, and drawn over the pillar by the end to which the kite was affixed. By this rope, one of the seamen ascended to the top; and in less than an hour a kind of shroud was constructed, by which the whole company went up and drank their punch, amid the shouts of the astonished multitude.

To the eye below, the capital of the pillar does not appear capable of holding more than one man; but it was found large enough to accomodate eight conveniently. It is astonishing that no accident befel these madcaps in this giddy situation. The only injury which the pillar sustained was the loss of a volute, which is a kind of spiral scroll ornamenting the Corinthian capitals. This was carried to England by one of the captains, as a present to a lady who commissioned him for a piece of the pillar. The discovery which they made, amply compensated for this mischief, as, without their evidence, the world would not have known to this hour, that there was originally a statue on this pillar, one foot and an ancle of which are still remaining. The statue must have been of gigantic

size, to have appeared of man's proportion at so great a height.

Learned men and travellers have made many fruitless attempts to discover in honour of what prince this stately pillar was erected ; for, notwithstanding its common appellation, it is thought that it could not have been raised to the memory of Pompey.

COLOSSAL STATUE OF PETER THE GREAT.

One of the noblest monuments of veneration for Peter the Great, is an equestrian statue of that monarch, cast in bronze, and erected in the open space before the palace at St. Petersburg. It stands upon a stupendous mass of reddish granite, which was discovered half buried in a morass at some distance from the city. The morass was drained, and a road cut through the forest, in order to get it out ; and although it weighed 1,500 tons, it was drawn to the banks of the Neva, and conveyed in a vessel purposely constructed for it to the place where it now stands.

The statue is of colossal size, and represents the monarch in the act of mounting a precipice. He appears in a loose Asiatic vest, seated on a bear-skin, and crowned with a wreath of laurel. His left hand holds the reins of the horse, and his right is extended, as in the act of blessing his people. The horse is rearing on his hind legs, and his flowing tail slightly touches a bronze serpent. The simple inscription upon it is,

Catherine II. to Peter I.

This beautiful statue was erected in the year 1782, and the ceremony was performed with great pomp and solemnity. At the same time the emperor issued a proclamation to pardon all criminals under sentence of death, and all deserters who should return to their duty within a certain time.

THE COLOSSUS OF RHODES.

This enormous structure has well been classed among the wonders of the world. It was a vast image of brass erected in honour of Apollo, or the Sun, whose feet were placed upon two rocks fifty feet apart, and bounding the entrance into the harbour. Its height is said to have been one hundred and five feet, so that ships of considerable size were able to sail between its legs. It was thrown down by an earthquake sixty years after its completion.

TRAJAN'S PILLAR.

There are four columns in Rome remarkable for their antiquity and excellent workmanship. The most celebrated is that erected in honour of the emperor Trajan, which is about one hundred and thirty feet high, exclusive of the pedestal. It consists of large pieces of white marble, hollow within, and so curiously cemented as to appear but one entire stone. Within, there is a winding stair-case to the top of the pillar, lighted by many little windows. The outside is adorned with representations of the great actions of the emperor. Instead of a golden

men at the top of it, in which his ashes were deposited, there is now a statue of St. Peter.

THE PYRAMIDS OF EGYPT.



These stupendous monuments stand between the city of Memphis and Delta. It is related by historians, that the largest pyramid employed 360,000 men continually for twenty years ; that 1800 talents, or 180,000 crowns were paid for roots, garlic and onions to sustain the multitude of workmen. The whole area at the base contains somewhat more than eleven acres of ground. On the outside of the pyramid there is an ascent by steps, which, at the bottom, are four feet in height and three in breadth but the higher they go they gradually diminish. The

breadth and depth of every step is one entire stone, several of them thirty feet in length. The number of steps is two hundred and seven.

The sides of this pyramid stand exactly facing east, west, north and south ; a position that must probably have been the effect of art and design, and marks the early progress of the Egyptians in the science of astronomy. Within the stately hall of this pyramid stands a tomb placed directly north and south. It consists of one piece of marble, hollowed, without any lid or covering, and on being struck, it sounds like a bell. The general opinion is that it was designed for the tomb of Cheops, or Chommis, king of Egypt, the supposed founder of the pyramid. The following description of a visit to the pyramid is from the work of a modern traveller.

“ On Wednesday, the 12th of August, we were roused, as soon as the sun dawned, by Antony, our faithful Greek servant, and interpreter, with the intelligence that the Pyramids were in view. We hastened from the cabin, and never will the impression made by their appearance be forgotten. By reflecting the sun’s rays they appeared as white as snow, and of such surprising magnitude, that nothing we had previously conceived in our imagination has prepared us for the spectacle we beheld. The sight instantly convinced us that no power of description, no painting, can convey a correct idea of these stupendous monuments.

“ On the twenty third of August we set out for a particular examination of the Pyramids. The mode of as-

cent has been frequently described, and yet, not so as to be generally understood. The reader may imagine himself to be upon a stair-case, every step of which, to a man of middle stature, is nearly breast high. The breadth of each step is equal to its height; and although in going up, it is sometimes fearful to persons unaccustomed to look down from any considerable elevation, yet there is little danger of falling. After an ascent that was little interrupted or impeded, we reached the topmost tier to the great delight and satisfaction of all the party.

“Here we found a platform, thirty-two feet square, consisting of nine large stones, each of which might weigh a ton. Travellers of all ages have here inscribed their names in most of the different languages of Europe; our own party were soon busy in adding their names to the list. The view from this eminence amply fulfilled our expectations. All the region towards Cairo, and the Delta, resembled a sea, covered with innumerable islands. Forests of palm-trees were seen standing in the water; an inundation spreading over the land where they stood, so as to give them the appearance of growing in the flood. To the north, as far as the eye could reach, nothing could be discerned but a watery surface thus diversified by plantations and villages. Towards the west and south west, the eye ranged over the Great Lybian Desert, extending to the utmost verge of the horizon.

“Having collected our party, upon a sort of platform before the entrance of the passage leading to the interior, and lighted a number of tapers, we all descended in-

to its dark mouth. Proceeding down this passage, we presently arrived at a very large mass of granite, which seems placed on purpose to choke up the passage. A way, however, has been made round it, by which we were enabled to ascend into a second channel, sloping in a contrary direction, towards the mouth of the first. Having ascended along this channel to the distance of 110 feet, we came to an horizontal passage, leading to a chamber with an angular roof, in the interior of the pyramid.

“In this passage we found upon our right hand the mysterious well, which has been so often mentioned. Pliny makes the depth of it equal to 129 feet; but Greaves, in sounding it with a line, found the plummet rest at the depth of twenty feet. We threw down some stones, and observed that they rested about the depth which Greaves had mentioned. Being at length provided with a stone nearly as large as the mouth of the well, and about fifty pounds in weight, we let this fall, listening attentively to the result. After a length of time which must have equalled some seconds, a loud and distinct report came from a spacious subterranean apartment, accompanied by a splashing noise, as if the stone had been broken into pieces, and had fallen into a reservoir of water at an amazing depth.

“We next visited, by a slippery and difficult ascent, what is called the principal chamber. The workmanship, from its perfection and its immense proportions, is truly astonishing. All about the spectator is full of ma-

jesty, mystery and wonder. Presently we entered the room in the very centre of the pyramid, at an equal distance from all its sides, almost in the midst between the base and the top. The floor, the sides and roof of it are all made of vast and exquisite tables of Thebaick marble. It is often called Oriental granite, and sometimes Egyptian granite.

“So exquisitely are the masses of this granite fitted to each other upon the sides of this chamber, that, having no cement between them, it is really impossible to force the blade of a knife within the joints. The length of this chamber is about twelve yards, and it is about six yards wide. The roof, or ceiling, consists only of nine pieces, of stupendous size and length, traversing the room from side to side, and lying like enormous beams across the top.

“It is impossible to leave the Pyramids without some notice of the long list of philosophers, marshals, emperors and princes, who, in so many ages have been brought to view the most wonderful of the works of man. There has not been a conqueror pre-eminently distinguished in the history of the world, from the days of Cambyzes down to the invasion of Napoleon Buonaparte, who withheld the tribute of his veneration from the genius of the place.

“The humblest pilgrim, pacing the sands about the pyramids, while he is conscious that he walks in the footsteps of so many mighty and renowned men, imagines himself to be for an instant admitted into their illustri-

ous company. Persian satraps, Macedonian heroes, Grecian bards, sages and historians, Roman warriors, men of every age, nation and religion, have trodden the same ground, and shared the same feelings with himself. Desolate and melancholy as the scene appears, no traveller leaves it without regret, and many a retrospect of objects which call to his mind such numerous examples of wisdom, of bravery and of virtue."

THE SPHYNX.

This celebrated monument of Egyptian antiquity is still to be seen about sixty yards to the right of the great pyramid. It is an enormous figure carved out of one stone. Most of its features have been mutilated by different barbarians from time to time, but they still retain traces of feminine beauty. The height of the Sphinx is twenty-six feet, the circumference of the head twelve, while the length of the back is supposed to be nearly sixty feet.

CLEOPATRA'S NEEDLE.

Obelisks are angular pillars which gradually diminish to the top. They are found in great numbers in Egypt, whence many have been carried to Rome. They are for the most part composed of one block of stone. That called Cleopatra's Needle is on the shore near Alexandria. The figures on this column are hieroglyphics, supposed to be a species of characters some-



what like those of the Chinese, and to record astronomical observations, or events in history.

CANALS AND RAIL-ROADS.

ERIE AND HUDSON CANAL.



New York surpasses every state in the Union for canals. The great *Erie and Hudson Canal*, from Albany to Buffalo was begun in 1817, and finished in 1825, at the cost of above nine millions of dollars. It is three hundred and sixty-three miles long, forty feet wide, and four feet deep. In the whole length of the canal there are eighty three locks and eighteen aqueducts. All works of wood or stone which are made to confine or raise the water of a river or canal are called Locks. Those on the Erie Canal are built in the most durable manner of stone laid in water lime, and are each ninety feet long and fifteen wide.

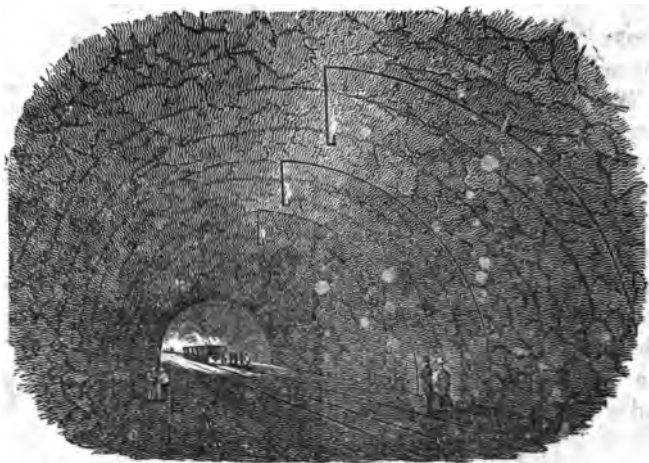
One of the aqueducts crosses the Genesee river at Rochester, and is eight hundred and four feet in length. Another crosses the Mohawk at Little Falls on three large arches. The sides of the canal are sometimes paved with stone, and sometimes covered with thick grass to keep the soil from washing away. A path four feet above the surface of the water, and ten feet wide, runs the whole length of the canal.

The canal boats for the conveyance of passengers are generally eighty feet in length, and fourteen in width, drawing from one to two feet of water. The cabin occupies nearly the whole length of the deck, and is eight feet in height, with single births on each side for thirty persons. They are drawn by three horses and proceed day and night four miles an hour. Boats with merchandise go about eighty-five miles in twenty-four hours. The navigation upon this great canal is prodigious; and the work reflects the highest honour upon the enterprise and wisdom of those who planned it.

LIVERPOOL AND MANCHESTER RAIL-ROAD.

This rail-road is thirty-seven miles in length, and is the greatest work of the kind in England. Beginning at Liverpool, this road enters an open cutting twenty-two feet deep, with four lines of railway, and leading to the mouth of the great Tunnel, which is twenty-two feet wide and sixteen high. The sides are perpendicular for five feet above the floor, and surmounted by a semi-circular arch. This tunnel is cut through a strata of red

rock, blue slate and clay, and is 6750 feet, or above a mile and a quarter in length. The whole extent of this vast cavern is lighted with gas, and the sides and roof are white-washed, to give a greater effect to the illumination.



The road in the tunnel curves and begins a gentle ascent toward the east. At this extremity, the road leads into a wide area, forty feet below the surface of the ground, cut out of the solid rock, and surmounted on every side by walls and battlements. From this area a smaller tunnel returns towards Liverpool. Proceeding eastward from the area, the traveller finds himself upon the open road to Manchester, moving upon a perfect level,

the road slightly curved, clear, dry, free from obstruction, and the rails firmly fixed upon massive blocks of stone. After some time it descends very gradually, and



passes through a deep cutting, under large stone archways. Beyond this, the road leads through the great rock excavation of Olive Mount, which is seventy feet deep, and only wide enough for two trains of carriages to pass each other.

After leaving this, it approaches the great Roby bank,

stretching across a valley two miles in width, and varying from fifteen to forty-five feet in height. Here the traveller finds himself mounted above the tops of the trees, and looks round over a wide expanse of country. After some further curves, and passing several other banks, bridges, and cuts, the road is carried into the city of Manchester.

The track is double. The rails are of wrought iron, laid sometimes on stone, but where the foundation is less firm, upon wood. The whole work cost 820,000 pounds sterling.

ANTIQUITIES.

TEMPLE OF MEMNON.

The most magnificent ruins of Egyptian temples are found chiefly at Thebes in Upper Egypt. There are immense temples at various other places along the banks of the Nile. The ruins of the temple of Memnon are given in the cut. You will perceive that they are covered with the peculiar hieroglyphics of the Egyptians.

Fronting the Nile, at a considerable distance from the temple, are the colossal statues of Memnon, consisting of a man and woman in a sitting posture, from the bases of the pedestals to the top of their heads. They are seated upon stones fifteen feet high, and as many in breadth; the sides of which are covered with hieroglyphics. On the pedestal of the statue, which has been broken, is a Greek epigram; and of different parts of the

figures are several Latin and Greek inscriptions. It was an ancient belief that strains of music were uttered by



one of these statues, when the first rays of the morning sun broke upon it.

. CHARLEMAGNE'S CROWN.

The city of Nuremburg, in the circle of Franconia, has the charge of most of the imperial ornaments which are

gilded chariot of bronze, with horses of the same metal.

A great variety of curious articles have been found in various parts of the city, and are now arranged in a wing of the palace at Naples. They consist of statues; busts; altars; domestic utensels; musical instruments; vessels for sacrifices to the gods; mirrors of polished metal; silver kettles; cisterns for heating water; and even a lady's complete toilet, furnished with combs, thimbles, rings, paint, and ear-rings. Two statues representing a Mercury and a Sleeping Fawn, are particularly admired by men of taste; and their attention has been excited by many valuable paintings, and a large number of manuscripts. These, however, it has been found very difficult to put to any use, as the work of unrolling the burnt parchments, and reading the almost effaced letters, is so very laborious.

The streets of Herculaneum appear to have been perfectly straight and regular; the houses well built and uniform; and the rooms paved either with large Roman bricks, mosaic work, or fine marble. It seems that the town was not filled so suddenly with the melted lava as to deprive the inhabitants of time to escape, with their richest effects. This is inferred from the fact that there were not more than a dozen skeletons found, and but little gold or precious stones.

The town of Pompeii had been buried in the same manner with Herculaneum; but was not explored till about the year 1750. One street, which has been entirely

cleared, is paved with the same kind of stone of which the ancient roads are made ; and narrow causeways are raised about eighteen inches on each side for foot passengers. The houses are small, but neat and convenient ; and some of the rooms are ornamented with paintings, which appear extremely fresh and tolerably well executed. Few skeletons were found in the streets of this town ; but in the houses there were many, in situations which plainly proved that they were endeavouring to escape when the tremendous torrent of lava overtook them.

THE STRASBURGH HORN.

Among the curiosities of Strasburgh cathedral, is a large horn, of which the following story is told. About four hundred and twenty years ago, the Jews formed a conspiracy to betray the city of Strasburgh, and promised to give the enemy notice when to commence the attack, with this very horn. The plot being fortunately discovered, many of the traitors were burnt alive, and the rest were plundered of their property, and driven from the city. The horn is sounded twice every night from the steeple of the cathedral in gratitude for such a remarkable deliverance.

THE GREAT WALL OF CHINA.

One of the greatest curiosities in China, and one of the most astonishing remains of antiquity in the world, is a prodigious wall, which was built by the Chinese to prevent the frequent incursions of the Tartars. It is about

twenty-five feet in height, and broad enough for six horsemen to ride abreast upon it. Strong square towers are placed along the wall at proper distances, to the num-



ber of three thousand. In the time of the Chinese monarchs, before the Tartars subdued the country, these towers used to be guarded by a million of soldiers. The length of the wall, with all its windings, is about fifteen hundred miles.

It is built on some places which seems inaccessible, as well as over rivers, and such marshes and sandy hollows, as appear incapable of admitting a foundation for so weighty a structure. It is chiefly constructed of brick, and so strongly cemented, that though it has now stood above two thousand years it is very little decayed.

RUINS OF PERSEPOLIS.



There are still remains of the magnificent palace of Persepolis, anciently the residence of the kings of Persia. It was once scarce inferior in splendour to any palace in the world ; and there are now to be seen broken walls adorned with sculpture, stair-cases of a vast extent, and pillars of a peculiar form, that indicate the great height of the fallen roofs. These ruins are about thirty miles to the north of Schiras, and are seated in a plain, partly surrounded by a range of mountains. The front extended 600 paces from north to south, and 390 from east to west. The stones of the wall are black and harder than marble. Some are finely polished, and many

so large that it is difficult to conceive how the ancient Persians were able to raise and move them.

The royal palace was of a square form and had on each side brazen gates. The halls and apartments were exceedingly spacious and lofty. Their walls were adorned with noble sculptures, some of which still remain to testify their ancient splendour; the cedar roofs shone with gold, silver, ivory and other costly materials. The furniture of the chambers was rich beyond description; and the royal throne was of pure gold embellished with pearls and precious stones.

The glory of this edifice, however, was the cause of its destruction. At a great feast held in it by Alexander the Great, the monarch imagined that it would be a noble exploit to burn so fine a palace, and in the heat of wine, carried his purpose into immediate execution. Thus this superb palace, together with the city, which for several ages had been the seat of the Persian monarchs, was reduced in a short time to a heap of ruins.

FORT DU QUESNE.

The magazine of fort Du Quesne was standing at Pittsburg in the year 1831, when the sketch was made from which the following engraving was taken. This fort was built on the first settlement of the country, and in the early wars between our ancestors and the French settlers, it was an exceedingly important post. The capture of this fort was the object of the campaign under General Braddock in 1755; and the scene of the battle

where he was so unfortunately defeated is at the distance of but a few miles. During the next year the for-



tress was deserted, and the possession of it by the English secured the peace and safety of the frontier settlements.

MISCELLANEOUS CURIOSITIES.

CORNWALL ROCKING STONE.

This celebrated pile of rocks is called the Cheese Ring. It stands near the top of a hill, and rises to the height

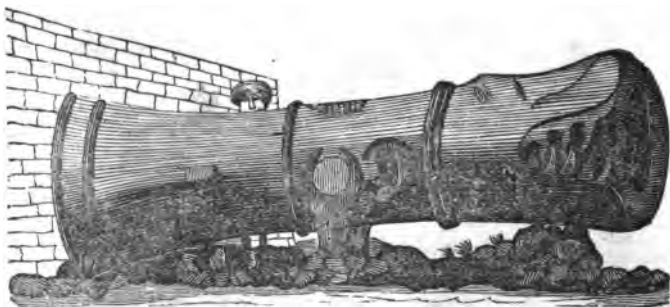
of thirty-two feet. The stones are placed one above another, and from the resemblance which some of them



bear to large cheeses, the group obtained its name. It consists of eight stones, the uppermost of which was for-

merly a rocking stone ; but part of it having been broken off it is now immovable. The great weight of the upper part, and the slender bearing between the third and fourth stones, have made it a subject of much wonder that such a pile could have resisted the storms so many ages.

BIG GUN AT BEJAPPOOR.



On the Coplee bastion, in the neighborhood of the Citadel of Bejapoor, is a cannon of cast metal, supposed to be partly gold, and of immense value. It is fifteen feet long and nearly five feet in diameter. It is wonderfully massive and solid, and has therefore remained without a blemish, though exposed on the top of an open bastion, in a ruined rampart, to the action of the elements for nearly two centuries. The bastion on which it is placed is large, and near a gateway, most solidly built of large stones.

There is a tradition that this cannon was once fired during a siege. The ball missed the besieger's camp, went hissing through the air, occasioning many a mishap for thirty or forty miles, and was never afterwards found. When you hear the story told on the spot, your guide will probably tell you, that "Many people suppose the ball to be still flying."

MAUSOLEUM OF HYDER ALI



The Eastern monarchs are very fond of expensive monuments. They lay out vast sums of money in building and embellishing their last resting-places. They load their subjects with oppressive burdens, making them eat the bread and drink the waters of bitterness, that their own dust and ashes may sleep in a gorgeous mauso-

leum. One of the most magnificent of these tombs is that of Hyder Ali at Seringapatam.

AQUEDUCT OF THE PEAT FOREST CANAL.



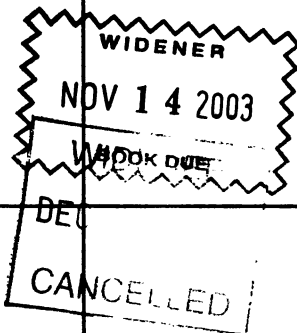
Aqueducts were constructed by the ancient Romans, not only in Italy but throughout the provinces : and there are still magnificent ruins in France and Spain. They were built for the purpose of bringing supplies of water to their towns. In modern times some grand aqueducts have been erected, but only of short extent, and chiefly to carry a navigable canal across a valley, over the course of a running stream or river. The aqueduct represented in the cut seems to have been built to carry the canal across a considerable valley.

THE END.

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